UNIVERSITY OF PENNSYLVANIA

RAIL AND MOTOR CARRIERS: COMPETITION AND REGULATION

PING NAN WANG

A THESIS

IN ECONOMICS

PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

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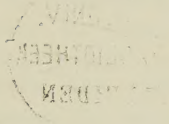

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PREFACE

During the past decade, a new form of transportation agency has striven to find its place in the transportation field and to establish itself on a permanent basis in competition with rail and other carriers. This agency has created many difficult problems entirely new to the railroads. It adds complexity to the task of the public service commissions in developing a most economic transportation system for the country as a whole.

Generally speaking, transportation by motor vehicles has become factor only within a short stretch of time. Railroad congestion, freight car shortage, and other attendent conditions during the World War gave the motor truck the real impetus in the United States. The increasing efficiency of motor coaches and the greater facility of transportation over hard surfaced highways fostered the further development of organized motor passenger service. Due to the newness of this form of transportation, the magnititude of the motor vehicle industry, the effect of its competition upon the railroad operation, and its economic usefulness in the field of transportation are not generally comprehended. Inasmuch as these factors have an important bearing upon the present and future relationships with railroads, this thesis has undertaken to marshal in a more systematic manner the essential information with reference to the various subjects covered in an effort to define the field to which each form is properly applicable and as far as possible to indicate the public policy to be devised which will serve the best interest concerned. The author should confess, however, that in no sense is this study comprehensive. Time and facility have limited the investigation of a complete survey of the situation.

In the conduct of this thesis, the author has resorted to a variety of sources. Information was obtained from the records of the Public Utilities Commissions of different states and from the decisions of the Interstate Commerce Commission. Valuable data was also supplied by the

National Automobile Chamber of Commerce; the Chamber of Commerce of the United States; U. S. Department of Agriculture; the National Association of Motor Bus Operators; Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce; Bureau of Railway Economics; Association of Railway Executives; International Chamber of Commerce; and Motor Vehicle Conference Committee. Traffic survey made by the Bureau of Public Roads in the several states was very helpful in the preparation of this thesis. In view of the wide range of materials used, it is impossible to make specific acknowledgement here to the various authorities drawn upon in the thesis.

The author, however, wishes to express his deep appreciation of the valuable criticisms and suggestions given by Professor S. H. Patterson, Professor James, and Professor Wendell Phillips Paine of the University of Pennsylvania. He also owes a word of thanks to Mr. Julius H. Parmelee, director, Bureau of Railway Economics, for his suggestion for certain changes in the thesis. He acknowledges his immense indebtedness to Professor Emory R. Johnson, Dean of the Wharton School of Finance and Commerce, University of Pennsylvania, with whom he has had innumerable conferences and from whom he has received inspiration in his intellectual pursuit.

Above all, he wishes to express his deep gratitude to Dr. G. Lloyd Wilson, Professor of Transportation, University of Pennsylvania, whose constant encouragement and assistance have made this thesis possible. Indeed, Professor Wilson has been a teacher, a counselor, and a friend during the author's study at the University of Pennsylvania. He is also greatly indebted to Mrs. Wilson for the careful reading of the thesis.

PING-NAN WANG.

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CHAPTER I

INTRODUCTION

In the evolution and development of transportation systems there has been a persistent tendency for one agency of transportation to be substituted for another in certain fields of service. In the Eighteenth Century, canals largely superseded roads for long distance transportation of heavy traffic. When the railroads made their appearance in the Nineteenth Century, canals dwindled rapidly in importance, until they could no longer be considered an important factor in the transportation system. In most cases the canals were abandoned and allowed to fall into disuse.

The railway continued to be the principal agency of land transportation until shortly after the beginning of the present Century. The invention and development of the internal-combustion engine for the propulsion of vehicles ushered in the motor vehicle and created a new use for highways. In 1895 four passengers cars were produced in the United States. By 1904, 22,419 passenger cars and 411 motor trucks were produced. The output of motor vehicles increased by leaps and bounds until in 1920 there were approximately 1,900,000 passenger cars and 321,789 trucks in service. The total registration in the United States in 1931 was 22,347,800 passenger cars and 3,466,303 motor trucks.[1]

Highway transportation system and equipment, including motor vehicles, as well as the roads, represent an investment of from $26,000,000,000 to $28,000,000,000.

1. National Automobile Chamber of Commerce, "Facts and Figures of the Automobile Industry.", 1932.

Today, instead of being a secondary transportation agency serving as feeders to the railroads, the highway in connection with the use of motor vehicles should be considered as one of the most important instrumentably for the transportation of persons and goods.

Progress cannot be achieved without throwing the existing equilibrium into disorder and it is an unfortunate fact that transitional periods are beset with practical difficulties. In the young industry of motor transportation itself, keen competition and rate cutting have played havoc with many of the responsible operators; while railroads and other agencies of transportation that come into competition with the motor transportation are confronted by serious difficulties in the readjustment of operating methods in the face of declining traffic. The vast amount of passenger-carrying capacity and freight-carrying capacity of motor vehicles that has been added to the transportation facilities of the nation in the past decade has unquestionally resulted in an oversupply of transportation service. The preservation of the equilibrium between supply and demand is necessary to the soundness of any industry, and the public is always vitally affected by either an oversupply or an undersupply.

What should be the proper attitude of the government, both regarding the entrance of the motor transportation into the transportation field and the regulation of railroads during this peried of changing conditions? Has any carrier a vested right in the rendering of transportation service to the country so that legislation should be adopted with a view to preserving and protecting the long-existing forms of transportation by restricting the new forms of transportation which may be better equipped to perform certain transportation functions? Or should

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2. I.C.C. Docket No. 23,400, Report of Examiner Flynn, p. 10.

the problem be approached from the point of view of a national transportation system and not primarily as one of transportation agencies.

Since the public is only interested in the efficient, and economical transportation service, it follows that each form of transportation should be developed and utilized in its field of maximum utility. The question is how to work out the relationship of these competing forms of transportation so as to provide the maximum of public service at the least cost to shipper and consumer and with fair compensation to the labor and capital employed.

The purpose of this thesis is to analyze the possibilities of motor carriers as competitors of the steam railways, to measure the extent of the competition in order to discover reasons for success or failure, to determine the economic field of operation for each so as to suggest the lines of coordination to be followed, and finally to discuss the legislative measures which should be adopted which will best control the situation in the interests both of the public and the competing agencies?

CHAPTER II

BUS COMPETITION AND RAILWAY PASSENGER SERVICE

The History of the Jitney—The jitney was the forerunner of the modern motor bus. It was an ordinary automobile—often a secondhand one,—usually operated by its owner and bought for other purpose than commercial transportation. It was chiefly due to the afterthought of bringing revenue to its owner that it was held out to the public as a common carrier. Its entrance into the field of transportation was first recognized in the fall of 1914. During the period 1915 to 1920, the increase in the number of jitneys was particularly rapid.[1] For a time jitney competition caused serious financial embarrassment to street railway companies. Various factors have contributed to the growth of the jitney business. The unemployment situation existing during the year 1914, the accumulation of a large stock of secondhand cars, wide advertising in the newspapers, and the appeal to a large number of people made by an opportunity to ride in an automobile are only a few of the reasons to be mentioned.

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1. Daggett, Stuart R., "Principles of Inland Transportation," Harper & Brothers, New York and London, 1928, p. 107.

The traffic characteristics of the jitney are well described by F. W. Doolittle:[2]

> In general the jitney has no definite traffic characteristics. In some places it adheres to definite routes and have some resemblance of maintaining a regular schedule. In other places it merely cruises, seeking desirable short-haul traffic. In some localities it is in readiness to serve during specific hours, even furnishing owl services; in others the time and place of its operations appear to be largely accidental and, like its entrance into the transportation field, sporadic.

While under favorable weather conditions the jitney afforded a speedy and convenient means of transportation, it was noisy, uncomfortable, and frequently unreliable. Numerous accidents resulting in injuries and death had led many people to return their patronage to the street cars.[3] Finally, unfriendly legislation and unsatisfactory operating revenues further discouraged its operation. It was inevitable, therefore, that the jitney should make way to the improved modern bus operated in larger units and by companies or persons of greater financial responsibility and should disappear altogether from the streets of American cities.

The Rapid Growth of Motor Bus Transportation—Although motor competition by the jitney and by the five or seven-passenger touring cars was of more or less temporary character, the enormous increase in the number of bus companies operating relatively large, comfortable,

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2. Doolittle, F. W., "The Economics of Jitney Bus Operation," Journal of Political Economy, vol. 23, July, 1913, p. 663.

3. Ibid., p. 680.

and economical buses with capacity of from 15 to 30 passengers has completely altered the passenger transportation business.

From 1917 to 1922 motor bus passengers exceeded 850,000,000. From 1922 to 1929, the period of great expansion of bus lines, the increase in the number of passengers was 1,674,000,000, or a gain of almost 200 per cent. On the other hand, the steam railroads lost 92,826,473, and the surface electric lines lost more than 400,000 passengers. The increase in the number of passengers using all modes of transportation over the previous five years was 1,500,000,000.[4]

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4. "Growth of Bus Transportation.", Motor Freight and Bus Journal, January, 1932, p. 26, A study made by the Transportation and Maintenance Division of The Society of Automotive Engineering.

TABLE I.—*The Growth of Motor Bus Transportation*[5]

As of December 31st	1926	1927	1928	1929	1930	1931
TOTAL ALL BUSES	80,000	85,700	90,500	92,500	95,400	98,900
Motor Carrier Buses	34,000	34,000	33,350	33,300	32,500	31,850
Electric Railway Buses	7,284	8,492	10,062	11,250	11,827	12,050
Steam Railroad Buses	750	994	1,256	1,454	1,759	1,500
School Buses	32,825	36,960	40,875	42,000	45,000	48,500
Sightseeing Buses (1)	2,600	2,750	2,750	2,346	2,175	3,000
Other Buses (2)	2,541	2,504	2,207	2,150	2,139	2,000
TOTAL ALL OPERATORS	21,900	22,700	23,600	23,900	23,490	23,000
Motor Carrier Operators	6,900	6,770	6,220	5,520	5,150	4,564
Electric Railway Operators	266	272	260	262	267	251
Steam Railroad Operators	58	67	62	66	59	55
School Operators	13,860	14,650	15,930	16,525	16,600	16,700
Sightseeing Operators (1)	333	340	380	455	400	380
Other Operators (2)	483	601	748	1,072	1,014	1,050
TOTAL ALL BUS ROUTES	568,900	644,400	719,500	782,500	827,100	898,000
Motor Carrier Bus Route	214,200	232,500	248,900	278,600	291,200	320,000
Electric Railway Bus Route	13,619	18,498	20,280	22,399	24,300	20,000
Steam Railroad Bus Route	8,700	10,519	16,793	25,236	28,000	27,000
School Bus Route	316,425	363,330	410,379	425,750	450,000	500,000
Sightseeing Bus Route (1)	12,525	15,125	17,185	21,409	23,500	23,000
Other Bus Route (2)	3,431	4,428	5,972	9,106	9,100	8,000
COMMON CARRIER BUS MILES	1,360,000,000	1,490,000,000	1,685,000,000	1,750,000,000	1,825,000,000	1,808,000,000
City Service	283,000,000	323,000,000	365,000,000	408,000,000	441,000,000	464,000,000
Inter-city Service	1,077,000,000	1,167,000,000	1,320,000,000	1,342,000,000	1,384,000,000	1,344,000,000
COMMON CARRIER PASSENGERS	1,363,000,000	1,524,000,000	1,683,000,000	1,855,000,000	1,866,000,000	1,802,000,000
City Service	986,000,000	1,121,000,000	1,234,000,000	1,558,000,000	1,362,000,000	1,377,000,000
Inter-city Service	377,000,000	403,000,000	449,000,000	497,000,000	504,000,000	465,000,000
COMMON CARRIER INVESTMENT	$ 275,000,000	$ 310,000,000	$350,000,000	$395,000,000	$400,000,000	$378,000,000
In Rolling Stock	70,000,000	83,000,000	95,000,000	110,000,000	110,250,000	108,000,000
In Terminals and Garages	205,000,000	227,000,000	255,000,000	285,000,000	290,000,000	270,000,000

(1). Small number included with Electric Railway and Steam Railroad figures.

(2). Includes hotel, industrial and other buses used for non-revenue purposes.

5. National Association of motor Bus operators. "Bus Facts for 1932, p. 5.

At the end of 1931, there were approximately 98,900 motor buses registered in the United States, approximately one-half of which were classified as non-revenue and the other half as revenue.[6] Common-carried buses in city and inter-city services produced in the same year 1,808,000,000 bus miles and carried a total of 1,802,000,000 passengers.[7] Motor buses produced 11,280,000,000 passenger miles in 1930 and 10,880,000,000 in 1931, compared with 7,825,000,000 in 1926.[8] It is estimated that the investment in common-carrier buses with terminals and garages amounts to $397,000,000.[9] There were 4,932 independent companies operating 29,377 buses, of which number 2,712 were touring cars. Of these companies, 516 operated 5,234 buses over 111,627 miles of interstate routes.[10]

The Extent of Bus Competition—The exact extent to which motor buses compete with railroads is difficult to determine for several reasons. First, motor bus operation is still in a process of rapid adjustment with new lines being organized and others going out of business almost from day to day. Routes are subject to constant changes so that a line that has been a competitor today may cease to be so tomorrow. Secondly, bus lines sometimes fail to comply with the law requiring certificates of public

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6. Non-revenue producing buses include school hotel industrial and other buses used for non-revenue purposes.

National Association of Motor Bus Operators, "Bus Facts for 1932," Washington, D. C., p.p. 8-9.

7. Ibid., p. 5.

8. National Automobile Chamber of Commerce, "Facts and Figures of the Automobtive Industry.", 1932 edition, New York, p.62.

9. Supra Cit., "Bus Facts for 1932.", p.5.

10. Ibid., p. 9.

convenience and necessity, thus not being included in the state commission reports.[11] Finally, there are often differences of opinion regarding what constitutes a competitive bus line. In seeking evidence as to the extent of competition, however, it is not the exact number of miles, but rather the extent to which rail lines on the whole are being subjected to this kind of competition that is of particular significance.

An analysis of bus operations in the States of Arizona, Connecticut, New Hampshire, West Virginia, Kentucky, Oregon, and Washington by the Bureau of Public Roads, of the United States Department of Agriculture, shows that 41 per cent of the bus mileage is directly competitive with rail lines, paralleling rail lines between the same termini; 28 per cent is indirectly competitive, i.e., bus terminals have only indirect rail connections necessitating changes of trains at one or more junctions and a roundabout journey; and 31 per cent is wholly non-competitive, serving territory not served by rail lines.[12] A summary of the motor bus routes in these states according to the above classification is shown in Table II.

Bus competition has developed to a greater extent in the southern portion of New England than in any other section of the country, with the exception of the Indianapolis region and a few sections on the Pacific Coast. That this condition should exist is not at all surprising due to the fact that this section of the country has more cities of substantial size for its area than any other section and therefore is more susceptible to bus competition. In Massachusetts and Rhode Island more than one-half of the railroad mileage is paralleled by motor bus lines or a

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11. Slater, J. E., "A Study of The Motor-bus as a Competitor of the Railroads.", The Journal of Land & Public Utility Economics, April, 1926, p.132.

12. Trumbower, H. R., "The Motor Bus as a Common Carrier," Public Roads, December, 1925, p. 214.

TABLE II.—*The Competition of Motor Bus with Railroads*[13]

	Class I routes Directly Competitive				Class II routes Indirectly Competitive			
	Routes		Length		Routes		Length	
	Number	Per cent	Miles	Per cent	Number	Per cent	Miles	Per cent
Connecticut	23	43	463	50	17	32	311	34
New Hampshire	7	22	60	19	6	19	91	30
West Virginia	23	38	282	29	30	49	591	60
Kentucky	70	37	1,588	41	40	21	1,074	28
Arizona	10	26	728	31	14	36	1,061	45
Oregon	31	38	1,916	51	11	14	355	10
Washington	67	39	1,730	40	40	23	1,123	25
Total	231	37	6,767	41	158	25	4,606	28

TABLE II. (*Continued*)

	Class III routes Non-competitive				Total			
	Routes		Length		Routes		Length	
	Number	Per cent	Miles	Per cent	Number	Per cent	Miles	Per cent
Connectiout	13	25	150	16	53	100	924	100
New Hampshire	19	59	160	51	32	100	311	100
West Virginia	8	13	114	11	61	100	987	100
Kentucky	79	42	1,214	31	189	100	3,876	100
Arizona	15	38	569	24	39	100	2,358	100
Oregon	39	48	1,468	39	81	100	3,739	100
Washington	64	38	1,526	35	171	100	4,379	100
Total	234	38	5,201	31	626	100	16,574	100

total of 1,175 miles of railroad.[14] These bus routes paralleled a much greater portion of the main lines than of the branch lines. Of the railroad mileage paralleled by bus routes, more than one-half were lines of the New

13. Public Roads, December, 1925, p. 215.

14. Slater, J. E., "A Study of the Motor-bus as a Competitor of the Railroads", The Journal of Land and Public Utility Eeconomics, April, 1926, p. 133.

York, New Haven and Hartford Railroad, the balance being lines of Boston and Maine and the Boston and Albany Railroads.

In the Mid-west, the railroads in Indiana are subject to more severe bus competition than in the other states of the district. In 1925 there were some 270 bus routes in operation in this state, about 120 of which were in direct competition with steam-railroad lines, paralleling 3,000 miles of the latter's tracks. Almost every railway entering Indianapolis, which is a focusing point for almost all of the traffic in the state, was paralleled by a competing bus line. As of the end of November, 1925 2,680 miles, or 31% of the total railroad mileage in Michigan, was paralleled by bus lines. Passenger permits had been issued to 164 bus lines, seventy-eight of which were wholly competitive with rail carriers and eleven partially so. The extent of motor bus competition in Iowa is considerably less than in the other two Midwestern states mentioned. Only 1,831 miles or about one-third of the total mileage of the railroads in this state was paralleled by motor bus routes in 1925, due to the relatively smaller numbers of large cities and a greater portion of the rural area in this state. Railway mileage in Wisconsin was paralleled to a less degree than in Iowa. As of December, 1925, 50 of 62 bus lines were direct competitors of steam railroads.[15]

Types of Independent Motor Bus Service—Common carrier bus service operated by independent proprietors who have no connection with other agencies of transportation or with industries, hotels, school boards or other organizations may be classified as (1) urban bus service, (2) intercity service, (3) motor tourist service, (4) bus service in rural areas and (5) chartered bus service. While there are other ways of classification, the present

15. Ibid., pp. 134-135.

one, though by no means exhaustive or exclusive, will serve as a basis for discussion.

1. Urban bus service—Motor buses engaged in urban services do not compete to any appreciable extent with the steam railroads. By far, the majority of these operations are often conducted as a part of the service operated by the electric railways that serve the city. Urban bus services in direct competiiton with existing services are found, however, in many notable instances.[16]

Another form of urban bus service, which feeds into, rather than draws business from the rail lines, embraces those independent lines that connect communities not served by rail, or traverse urban and suburban sections without rail transit. Bus lines are also provided for the definite purpose of connecting and extending the service of railroads.[17] Such feeder or auxiliary lines may be independently operated, but so long as this service is confined to a single city or to a metropolitan area served by a single utility or by a group of utilities under one central control, it is most likely that the bus service will be controlled by that utility. [18] A number of steam railroads, although to a lesser extent than the electric railways, are establishing bus lines as feeders.

Bus routes have been instrumental in developing the suburban and semi-suburban districts surrounding the large cities of the United States. Population has usually spread faster than the facilities of the traction companies

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16. Bus routes operated on Fifth Avenue and Riverside Drive in New York City, and on Michigan Avenue and the Mid-way in Chicago.

17 Chamber of Commerce of the United States Report of Special Committee IV, "Relation of Highways and Motor Transport to Other Transportation Agencies." (1923), p. 30.

18. Exceptions to this are found in New York, Chicago, and St. Louis where the franchises granted to the street railway systems covered streets rather than areas.

could expand. Comparatively light traffic density, however, does not justify the expansion of street railway system, the construction and maintenance cost of which is rather high, hence motor buses are extensively used to serve the new districts. Bus lines in the suburban development service are either operated by steam railroads, electric railways, or by independent motor bus operators. The last mentioned have frequently been acquired by utility companies, but there are still many independent operators doing important work in this field.[19]

There are still other urban bus services of miscellaneous character, but it does not seem desirable to discuss this phase of bus situation in detail. It is sufficient to state that motor buses are extensively used to convey pupils to and from schools where traction lines do not furnish adequate facilities. Factories located at a distance from railroads lines use buses to carry their employees between their homes and places of employment. Sight-seeing buses are found in virtually every large city and resort. Bus services of the above types are operated, in some cases, by independent companies, and in others, by the local utility companies, factories, and the school boards.[20]

2.—Interurban bus service—It is in the field of interurban transportation that the independent motor bus companies have been most active. The scope of this phase of bus service is very broad, ranging from those that border the suburban services to those important services between large centers of population with considerable distances apart. In contrast to the slow, capacious city motor coaches, the interurban bus lines provide rapid, comfortable long-distance highway transportation.

Interurban motor bus lines oftentimes supply a complementary service to the interurban electric railways and

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19. Johnson, Huebner, and Wilson, "Principles of Transportation", Appleton, New York, 1928, p. 390.

20 Ibid., p. 389.

to the steam railroads. Because of their cramped financial positions, only a small mileage of new interurban lines has been constructed in recent years. Those lnies already in service have in many cases allowed their road-bed, rolling stock, and general standards of service to deteriorate. They would consider themselves fortunate to be able to care for whatever expansion was required in the areas covered by their franchises. The steam railroads, too, have only made infrequent extension into the new territory since the effective date of the Transportation Act of 1920.[21] There is every indication, then, that in developing new territory and in supplementing existing services the motor bus has found an economic field of operation and has proved to be practically the only means used to establish interurban connections.

There is little question but that the interurban bus service is to a large extent also competitive in nature, the extent and effect of which is discussed elsewhere.

3. Rural services—Rural areas are those localities not now reached by any transportation utility.[22] Two factors are found in this field which have facilitated the development of motor bus service. The same financial difficulties of the existing utilities that prevent them from extending into outlying suburban districts operate with equal force here. Moreover, light traffic in the rural districts would prevent the operation of steam or electric lines from being profitable, even granting their financial ability to expand, which is often doubtful. The small initial investment of motor transportation with consequent small fixed charges makes bus service better suited than the railroads in this field. Buses in such areas are often

21. Forty-fifth Annual Report of the Interstate Commerce Commission (1931), p. 3.

22. Latimer, M. W., "The Motor Bus Situation in 1925", Harvard Business Review, Vol. IV, p. 158 (Jan., 1926).

operated in connection with a public garage or repair shop so that the men employed on the buses can be employed in the garage between trips.[23]

4. Motor tourist services—Tourist services are conducted by independent motor bus lines in addition to their regular scheduled runs or by interests which employ the motor lines to conduct the tours. Tourist service usually includes motor transportation, hotel accomodations, and meals.[24] The development on the Pacific Coast, where by combinations of routes it is possible to travel from Portland to San Diego on lines operated on regular schedules, is significanct.[25] Extensive motor trips have been developed in Florida, National Parks, and other sections of the country.

5. Chartered bus services—Increasing use has been made of the chartered buses to transport students to and from college towns, delegations attending conventions, athletic teams traveling considerable distances, and other special groups. The practice of chartering buses is attributed to the fact that the schedule or route may be changed to suit the convenience of the party at any time. Numerous stops may be made en route. If chartered at a flat rate per mile or on an hourly basis, arrangements are usually made for sightseeing or side trips at destination.[26]

Chartered buses have made some appreciable inroad upon railroad passenger revenue, and the disturbing factor it produces on rail fares deserves more than a passing mention. Complaints have been heard that chartered buses

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23. Ibid., p. 158

24. Johnson, Huebner, Wilson, "Principles of Transportation", p. 391.

25. Chamber of Commerce of U. S., "Relation of Highways and Motor Transport to Other Transportation Agencies.", p. 30.

26. I C. C. Docket No. 23400, Report by Examiner Leo. J. Flynn, p. 43.

reduce fares as competition demands. Rail carriers are obliged by legislation to publish proposed fare for a party in tariff which can take effect only by posting at stations three days in advance of date of sale; or, if the trip is of three days duration or less, the tariff has to be posted one day in advance of date of sale. Therefore, the motor bus lines have every opportunity to underbid the railways if they choose to do so, the evidences of which are not wanting.[27]

6. Brokerage in bus transportation—There has grown up in many cities the practice of brokerage in transportation of passengers by agencies who do not represent any regular bus lines. These agencies advertise and sell transportation between certain points at fares appreciably less than the fares of regular bus lines and then place the passengers in buses owned by irregular operators, frequently owners of private automobiles who are answerable to no regulatory body and are financially irresponsible. For this service, the agencies retain a certain percentage of the fares collected as commission.[28]

Transportation of this character is the source of complaints registered by interstate bus passengers using such service. The Interstate Commerce Commission has condemned this practice as it tends to disrupt the safe, adequate service of the regular bus lines and recommended that it be prohibited.[29]

The Nature of Bus Competition—A study of the changes in the operating statistics of railroad passenger traffic over a period of years will indicate in a general way

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27. I. C. C. Docket No. 23400, Report by Examiner Leo. J. Flynn, p. 43.

28. I. C. C Docket No. 23400, Report of Examiner Leo. J. Flynn, pp. 43-44.

29. "Motor Bus and Motor Truck Operation", 14 0, I. C. C 704.

the source of the loss of the passenger business, and thus the nature of bus competition.

Passenger traffic carried on the Class I railroads reached its peak in 1920 when 1,235,000,000 persons were carried, and since then has steadily declined, only 704,000,000 being carried in 1930, a decrease of 43% in ten years. Passenger miles also reached its maximum in 1920 and has shown the same trend in the decreasing number of passengers carried. The decrease from 1920 to 1931 was 42 per cent as shown in Table III.

It is interesting to note that greater loss has occurred in the number of passengers than in passenger miles, which is explained by the greater number of long distance passengers and the smaller number of local passengers carried. The average journey in 1920 was 37.9 miles, while in 1929 it was 39.81 miles, and in 1930 it was 38.11 miles. The differences between the 1920 figure and the figures of later years tends to show that the effect of highway automotive competition was confined primarily to the short-haul traffic. Within the last few years, however, the operation of long distance bus lines has increased rapidly, as is reflected in the tendency of the average length of passenger journeys to decrease after it has reached a maximum length of 41.2 miles in 1926. This point is stressed here in order to call attention to the fact that the economic field of bus operation has been expanding and that the problem is more than a feeder or branch line problem, as is often erroneously supposed.

Passenger train miles have shown rather slight variations since 1920. This is due to the inauguration of numerous high class long distance trains by railroads, although they have eliminated a large local train service.[30]

30. American Association of Railroad Superintendents, Proceedings, 1930, p. 14.

Revenues per passenger-mile reached the maximum following the increase in fares in 1920. The tendency since that time has been to decrease steadily resulting in a decrease of 12% in 1930 as compared with 1920. This was due to the increase of excursions and other reductions in fares as well as to the increasing ratio of commuters to the total number of passengers.[31]

TABLE III.—*Revenue Passenger Statistics for Class I Railroads in the United States*

(From the Statistics of Railways, published by the Interstate Commerce Commission)

Year ended Dec. 31	Passengers Carried (Millions) (1)	Passenger Miles (Millions) (2)	Average Journey (Miles) (3)	Passenger Revenue (Millions) (4)	Revenue per Passenger Mile (Cents) (5)	Passenger Train Miles (6)	Passengers per Train (7)	Passengers per Car (8)
1916	1,006	34,586	34.38	707	2.04	576	57	16
1917	1,067	39,477	37 01	825	2.09	576	65	17
1918	1,085	42,677	39.33	1,032	2.41	529	76	20
1919	1,178	46,358	39.36	1,178	2.54	540	82	21
1920	1,235	46,848	37.94	1,287	2.75	562	80	20
1921	1,035	37,313	36.03	1,152	3.09	555	67	16
1922	967	35,470	36.66	1,074	3.03	541	65	16
1923	987	27,957	38.46	1,146	3.02	561	67	16
1924	933	36,091	38.70	1,075	2 98	566	63	15.3
1925	888	35,950	40.47	1,056	2.94	570	63	14.8
1926	862	35,478	41.14	1,042	2.94	574	61	14.3
1927	830	33,650	40.55	975	2.90	569	59	13.5
1928	790	31,601	39.99	901	2.85	561	56	12.9
1929	780	31,074	39 81	872	2.81	561	55	12.5
1930	704	26,815	38.11	728	2.71	539	49	11.3
			(2) ÷ (1)		(3) ÷ (2)		(2) ÷ (6)	

In spite of the decrease in the total passenger traffic, commutation travel and Pullman car traffic showed an increase. The extent of the change in commutation

31. Ibid.

passengers is indicated by the fact that in 1922, the first year for which complete statistics are available, the commutation passenger miles were 6,131,107,000,[32] and in 1930, 6,669,111,000, a gain of nearly 9.8 per cent in nine years. If the year 1930 is omitted as a year influenced by business depression, commutation passenger miles increased 10.68 per cent from 1922 to 1929, while the other passenger miles decreased 17.33 per cent for the same period. The average revenue per passenger mile for commutation traffic remained fairly stationary, while that of the other traffic fell 4.26 per cent from 1922 to 1929. Both commutation travel and revenue increased up to 1930 when there was a decrease due, doubtless to the general business condition of that year.

TABLE IV.—*Statistics of Railroad Commutation Travel*[33]

Year	Number Revenue passengers	Number revenue passengers carried 1 mile (Thousands)	Revenue Per passenger mile (cents)	Passenger revenue	Average journey (miles)
1922	429,396,639	6,131,784	1.101	$67,510,942	14.28
1923	446,879,204	6,400,779	1.093	69,860,515	14.33
1924	437,028,035	6,406,931	1.104	70,731,414	14.60
1925	446,766,269	6,592,186	1.107	$73,003,746	14.76
1926	445,936,354	6,604,623	1.127	74,425,771	14.81
1927	445,170,926	6,429,871	1.114	74,106,565	14.94
1928	442,483,649	6,625,723	1.110	73,558,882	14.97
1929	457,617,476	6,898,473	1.105	76,211,883	15.07
1930	438,688,255	6,669,111	1.090	72,669,597	15.20

Traffic congestion on the highways near the large cities during the morning and evening rushing hours has been responsible for the increase in the commutation traffic. It is becoming increasingly difficult to find adequate

32. Commission on Commerce nd Marine, American Bankers Association, "Automotive Transportation and Railroads.", p. 24.

33. Compiled from Statistics of Railways in the United States and I C. C. Docket No. 23400, Examiner's Report, p. 20 .

parking space in the business sections of these cities. In many instances railroads that operate suburban rail service to and from large cities have arranged for parking space at their suburban stations so that commuters who use the rail lines may use their private automobiles for the travel between homes and suburban stations.[34] Motor bus companies make little attempt to compete for the great bulk of the passenger traffic that moves on commutation rates on the railways, but rather appeal to single trip or round-trip passengers who have to pay the full rate on the railroads. This is a real loss to the railroads because it is the most remunerative traffic in the suburban zone.

The fact that Pullman traffic has held up much better than rail passenger traffic generally is evidenced by the changes in the relative importance of the several classes of passenger-train car-miles as shown in table V. It is to be observed that the decreased use of steam train passenger cars, in which passengers purchasing Pullman accomodations are carried, is matched by a marked increase in the relative importance of Pullman cars and rail motor cars.

TABLE V.—*Ratio of Each class of Passenger-train Carmile to the Total*[35]

Itms	1923 %	1924 %	1925 %	1926 %	1927 %	1928 %	1929 %
Passenger cars, excluding motor	35.98	34.53	32.78	30.96	29.96	28.80	27.10
Motor cars	1.65	1.73	1.91	2.47	2.92	3.19	3.80
Sleeping, parlor, and observation cars	26.34	27.40	29.32	30.50	31.11	31.63	32.58
Dining cars	3.52	3.57	3.83	3.98	4.11	4.18	4.37
Oher passenger-train cars	32.51	32.77	32.16	32.09	31.89	32.20	32.15
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

34. I. C. C. Docket No. 23400, Report of Examiner Leo. J. Flynn, p. 21.

35. I. C. C. "Statistics of Railways in the United States", 1929, p 20.

The operating revenues of the Pullman Company in 1929 showed an increase of 2.73 per cent over 1925. The berth revenue passengers decreased 6.51 per cent and the seat revenue passengers decreased 4.82 per cent during the same period. Thus the gain in the operating revenue is attributed to the longer average journey of Pullman passengers. Pullman car traffic in general is not attracted by lower bus fares.

The result of the general observation of the fluctuations in these kinds of passenger traffic seems to point to the conclusion that the competition of automobiles and motor buses so far has been confined chiefly to local and interline travel with the tendency to extending their competition to long distance travel. A study of the length of bus operations will shed more light upon the situation.

TABLE VI.—*Statistics on Pullman Car Traffic*[36]

Year	Revenue Passengers-berth	Revenue Passengers-seat	Total Operating revenue
1925	22,470,749	13,055,051	$80,198,066
1926	22,658,191	13,415,020	81,834,317
1927	22,042,093	13,155,085	80.952,208
1928	21,310,891	12,613,029	80,846,044
1929	21,008,719	12,425,549	82,383,772
1930	18,498,844	10,861,342	76,234,007

A survey of bus operations in the states of Arizona, Connecticut, Kentucky, Maryland, New Hampshire, Oregon, Washington, and West Virginia shows that of the 705 separate suburban and interurban motor-bus routes, with a total mileage of 18,169 miles in 1925, over 50 per cent of the routes is less than 20 miles in length, nearly three-fourths less than 30 miles, and only 11.9 per cent of the

36. I. C. C. Docket No 23400, Report of Examiner Leo. J. Flynn, p. 21.

routes were more than 50 miles in length, as shown in Table VII.

TABLE VII.—*Classification of Motor-Bus Routes According to length.*[37]

Length of routes (miles)	NUMBER OF ROUTES									
	Connecticut	New Hampshire	West Virginia	Kentucky	Arizona	Oregon	Washington	Maryland	Total	Percent
0— 9	17	21	23	34	6	11	28	21	161	22.8
10—19	10	9	18	64	11	18	44	29	203	28.8
20—29	19		12	53	3	14	30	12	143	20.3
30—39	6	1	4	20		8	28	8	75	10.6
40—49	1		3	9	2	4	19	2	40	5.6
50—59				3	1	7	10	2	23	3.3
60—69		1		2	3	4	5	3	18	2.6
70—79			1	3	3	4	1	2	14	2.0
80—89					2	2	3		7	1.0
90—99				1	3		1		5	0.7
100 plus					5	9	2		16	2.3
Total	53	32	61	189	39	81	171	79	705	100.0

The average length of 25.8 miles for all these routes in the eight states admits no doubt as to the popularity of coaches for short-haul travel. It also confirms the view entertained in analyzing railway passenger traffic loss that buses compete primarily for short-haul passenger traffic. However, average length of bus operation varies with different sections of the country. It is relatively short where the population is dense and the distances between population centers small, such as in the states of Connecticut, Maryland and New Hampshire; and it is long where the population is sparse or the distances between population centers great, such as in the states of Oregon

37. Trumbower, H. R. "The Motor Bus as a Common Carrier", Public Roads, vol. 6, December, 1925, p. 214.

and Arizona. In New England, the average length of 490 coach routes is about 18 miles. Coach routes from Louisiana to points in Arkansas and Texas range from 40 to 130 miles.[38]

TABLE VIII.—*Number and Length of Motor-bus Routes in Eight States.*[39]

State	Number of routes	Total length of routes	Average length of routes
New Hampshire	32	311	9.7
West Virginia	61	987	16.2
Connecticut	53	924	17.4
Kentucky	189	3,876	20.5
Maryland	79	1,622	20.6
Washington	171	4,379	25.6
Oregon	81	3,739	46.1
Arizona	39	2,358	60.5

During the last few years, long-distance bus routes have been gradually established. Included in this list are: from New York to Boston, Massachusetts, 229 miles; Portland, Ore., to San Francisco, Cal., 722 miles; El Paso, Tex, to Los Angeles, Cal, 892 miles; Denver, Colo., to Lost Angeles, 1404 miles; Chicago to St. Louis, Mo., 279 miles; and Philadelphia, Pa., to Buffalo, N. Y., 425 miles.[40] The increase from 1926 to 1930 in the number of interstate buses, which use the highways for long-haul business and are patronized by travelers who used to ride on the railroad trains is 400 per cent.[41] In 1929, they carried 38,000,000

38. 140 I. C. C. 699

39. Trumbower, H. J., "The Motor Bus as a Common Caerier", Public Roads, vol. 6, 1925, p. 214.

40 Railway Age, "Examiner's Report on Motor Transport", vol. 84, 1928, p. 270.

41. The American Mercury, v. 21:268, Nov., 1930.

passengers and in 1931 they were operating 111,627 miles of routes.[42] Nevertheless the predominance of motor coach operations at present, at least, is still in the local and short haul business.

Factors in Motor Bus Competition—Relative rates and services are factors of great importance in the competitive situation between railroads and motor buses.

The standard basis of one-way steam railroad fares for day-coach services is $0.036 per mile. There is no stability as to fares by motor bus: the rates fluctuating sensitively to meet highway or highway-and-rail competition, especially in unregulated interstate commerce but also in intrastate operation.[43] There is moreover no uniform basis used in making rates for bus travel. According to a study made by J. E. Stater, the majority of bus fares are higher than rail fares:

> An analysis of rates published at various times in Bus Transportation involving 2,000 routes, totaling about 50,000 miles of line in 20 states, shows that the largest proportion of bus rates exceed both steam and electric railway fares. Of the rates so studied, 48.4 per cent exceeded 4 cents per mile and 595 per cent exceeded the 3.6 cents rail rate. There were important exceptions, notably in Indiana, where considerably more than half of the mileage had rates of less than 3 cents per mile, and where greater proportion of the passengers were carried at rates of about 2 cents per mile.[44]

The Bureau of Public Roads has made a comparative study of the bus rates charged in the states of Connecticut and New Hampshire on routes in direct competition with railroads with those charged by the bus routes which do

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42. "Bus Facts for 1931", p. 7.

43. Duncan, C. S., "Problems of Rail-Highway Transportation", p. 86.

44. Slater, J. E., "Motor Transportation in the United States", American Economic Review, vol. XVIII, No. 1, Supplement, March, 1927, p. 150.

not have such direct competition. The result of the study indicates that in Connecticut, the average rate of fare charged by the bus lines paralleling steam railroads is 4.3 cents a mile, while on the lines not directly in competition with railroads it is 4.9 cents. In New Hampshire bus lines belonging to the first class charge an average fare of 4.4 cents a mile, those of the second class charge an average fare of 5.5 cents, and those lines which have no rail competition, either direct or indirect, charge an average fare of 7.9 cents.[45] It is clear that the actual or potential railroad competition does operate to keep bus fares at a lower level.

TABLE IX.

From	To	Rail		Motor-bus	
		Distances (miles)	Fare	Distances (Miles)	Fare
Boston, Mass.	Albany, N. Y.	201	$ 7.23	183	$ 5.00
Indianapolis, Ind.	St. Louis, Mo.	252	8.87	241	5.00
Kansas City, Mo.	Denver, Colo.	640	22.76	643	13.50
Los Angeles, Calif.	Salt Lake City, Utah	784	28.05	769	17.50
Chicago, Ill.	St. Louis, Mo.	284	10.41	311	3.00
Chicago, Ill	Los Angeles, Calif.	2,228	79.84	2,502	38.50
Texarkana, Ark-Tex.	Dallas, Texas.	193	6.67	198	6.00
Minneapolis, Minn.	Fargo, N. D.	231	8.32	278	7.25
Washingtong. D. C.	New York, N. Y.	224	8.14	246	5.50
Chicago, Ill.	Omaha, Neb.	496	17.93	544	11.00
Kansas City, Mo.	Omaha, Neb.	196	7.17	224	5.00
New York, N. Y.	San Francisco. Calif.	3,169	111.40	—	57.25

Regarding the long-distance bus fare, the Interstate Commerce Commission has reached the conclusion that, "Bus fares generally throughout the country approximate or are higher than railroad fares for short hauls, but are

45. Trumbower, H. R. "The Motor Bus as a Common Carrier", Public Roads, vol. 6, December, 1925, p. 217.

considerably lower for long hauls. Convenience and service are the determining factor in short-haul bus travel, while the lower fare is the strong appeal in the long-distance travel.[46] Table IX shows representatives competitive one-way rail and motor bus fares in long-distance transportation:[47]

Service is also a factor in motor-rail bus competition. The quality of bus and railroad service depends upon frequency, dependability, speed, comfort, convenience, flexibility, and safety. From the standpoint of frequency of service, motor busses show great advantage by operating in smaller units and consequently at less cost. The ratio of cost of highway bus to steam train operation is about 1 to 4, which means that busses can run four times as frequently as the steam train.[48] It is true that the average time by bus between points of travel is greater than that of railway trains, but it is offset by the fact that passengers can make better time between the points by bus which he can secure at shorter intervals than he can if he waits for the train.

The greater frequency of bus service is illustrated in the State of Connecticut, where busses in direct competition with railroads made 314 trips every day between points served by the railroads which made only 190 trips. Each motor-bus route averaged 13.7 trips per day, as compared with only 8.7 daily trips for the parallel steam roads. Translated into percentage, the bus service is 50 per cent more frequent.[49]

A related question arises as to whether curtailment of rail passenger service has been the cause or effect of motor

46. 140 I. C. C. 701

47. I. C. C. Docket No. 23400, Report of Leo. J. Flynn, p. 38.

48. See Page 113.

49. Trumbower, H. R., "The Motor Bus as a Common Carrier", Public Roads, December, 1925, p. 216.

bus competition. In spite of the constant decline of passenger traffic, the number of passenger train miles reached a maximum in 1926, being greater than in any year since 1917, when troops were transported.[50] As a result, the number of passengers per train decreased to 61 in 1926. The number of car miles and the average number of cars per train have been increased from 1920 to 1926, in which year the average number of passengers per car was 14. Since 1926, there has been a gradual decrease in both passenger train miles and passenger car miles. It is apparent, therefore, that the deflection of passenger traffic from rail to highway was not primarily the result of curtailment of rail service but the constant falling off in the passenger traffic has necessitated the withdrawal of certain passenger trains.

RAILROAD PASSENGER SERVICE

TABLE X.—(*Compiled from Statistics of Railways in the United States, 1930.*)

Year	Passenger train car-miles	Passengers per car	Passenger-train-miles	Passengers per train
1930	3,680,136,295	11	538,709,206	49
1929	3,857,133,049	13	560,692,022	55
1928	3,798,733,331	13	561,599,590	56
1927	3,830,557,011	14	538,537,968	59
1926	3,836,787,642	14	573,626,649	61
1925	3,746,426,910	15	569,764,884	63
1924	3,646,362,908	15	566,012,544	63
1923	3,585,263,476	16	560,980,411	67
1922	3,414,344,834	16	541,275,421	65
1921	3,469,062,198	16	554,804,976	67

Railroads have a decided advantage over motor buses, in the dependability of service, that is, the maintenance of

50. Statistics of Railways in the United States, I. C. C., p. LV, 1930

service and certainty of movements. There are wide differences in the standard of dependability in operation among the bus companies. The well established companies are better able to maintain reliable service than the lines not operated by responsible people.

Bus operations are seasonal in some sections of the country. During the periods of the year when public highways are not open to motor transportation because the highways are blocked with snow or are softened as a result of thawing and spring rains, the bus lines will find it difficult to maintain a regular schedule.

Great progress has been made, however, toward giving year-round service. In regions of severe winters and heavy snows, some of the bus companies have bought snow-removing equipment in cooperation with the states and various communities to clear the highways and evidence shows that the operations have been remarkedly regular.[51]

Comparison of respective speed between bus and train depends upon the number of local stops by steam trains. Busses compete favorably with railroad passenger trains for short runs of 20 to about 40 miles, local in character and with frequent stops. Runs greater than 40 miles with fewer stops can be made more quickly by train.

As to the comfort of riding, the average bus can compare favorably with the typical equipment used by railways on local or branch lines. Necessitated by policy of economy, the railroads must use for this phase of their operation poor equipment, which though not attractive is yet entirely safe. The situation is somewhat different where the railroads have substituted the local trains with rail motor cars of the modern types, contributing, therefore, greatly to the comfort of passengers.[52] On the other

51. Duncan, C. S., "Motor Bus and Truck Operation", p. 9.

52. See page 89.

hand, bus designers have been quick to seek improvement in the mechanical and body equipment to offer the greatest possible safety, convenience and comfort to passengers. Furthermore, by moving through the main streets of cities and towns rather than the "back yards" and by traversing generally more pleasant routes free from noise, smoke and cinders, the motor coach has added an appeal to pleasure and comfort to the desire to "ride on rubber."

The mortor bus has a great advantage from the standpoint of convenience, more nearly completing the trip for the average passenger by calling at his door and delivering him at his destination. Bus terminals are located in the heart of the business districts, and bus routes are operated along the main highways accessible to many people who are somewhat remote from the railroad, either steam or electric.[53] People in the country can not use the railway for travel between neighboring points because, in proportion to the whole journey, the trips to and from the stations are too long.

Another factor is the facility with which busses can be adjusted to comply with any change in travel demand. The physical characteristics of the motor coach are such that it is highly flexible with respect to the time of movement and the route of travel and rigid schedules are not alway necessary. The steam train, on the other hand, is adapted to handle large groups of people and must adhere to fixed schedules and routes.

In addition, busses sometimes possess the advantage in the directness of route. Trips between points which have only roundabout rail connections are often abbreviated into a much shorter and more direct motor route. Thence

53. Busses pick up or discharge passengers at certain street corners or along the highway en route when signalled to stop.

it affects not only saving in time but also in the total charges for the service.[54]

Motor Buses or Private Automobiles as Serious Competitors for Railway Passenger Traffic—While the evidence of the increasing bus competition is very convincing, that of the private automobile is overwhelming. Accurate calculation of the relative amount of railroad passenger traffic diverts to buses and private automobiles is not possible. It is generally estimated that the privately owned automobile is responsible for from 40 to 90 per cent of the loss in the passenger traffic of Class I Railroads, bus operation taking the remainder. In the case of a few short lines, the loss to private automobiles is almost 100 per cent.[55]

Nevertheless, the bus itself is becoming a serious competitor of the railroad. Long-distance bus lines connect distant cities superseding local steam railroad lines serving only near-by communities. More and more of the rail long-haul traffic has been diverted to the motor buses. The Denver and Rio Grande Western ascribes about one-sixth of its loss in passenger traffic to buses; the Northwestern Pacific, 30 per cent; the Southern Pacific, 25 per cent; and the Louisville and Nashville, from 35 to 40 per cent. The Interstate Commerce Commission has concluded that from about 20 to 30 per cent of the loss in passenger business has been caused by organized highway bus operations.[56]

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54. Trumbower, H. R., "The Motor Bus as a Common Carrier," Public Roads, December, 1925, p. 216. An extreme illustration is the motor route between Torrington and Bantam Connesticut with a distance of 10 miles and fare charge of 60 cents. Travel between these two points by railroad involves a total distance of 73 miles, with two train changes, at a cost of $2.63.

55. Correspondence with L. W. Landman, General Passenger Manager of the New York Central Lines.; I. C. C. Docket No. 23,400, Examiner's Report, p. 36.

56. 182 I. C. C., 313.

It remains for to be considered whether motor buses draw their traffic from the railroads or from private automobiles. Analysis of ticket sales at 26 stations at Minnesota reveals the fact that at stations where motor busses have been operating for some time, the loss of passenger traffic has not been materially greater than at stations where they have never operated.[57] At the fifteen stations where there has been no bus competition the decrease in passenger tickets in 1924 as compared with 1920 was from 49 per cent to 76 per cent. The average of the decrease was 64.6 per cent. At the other eleven stations where there was bus competition the decrease ranged from 55 per cent to 74 per cent, with an average of 63.7 per cent. There were only 100 motor busses in this state in 1921, which number increased to 400 in 1924. The following is a tabulation of ticket sales at 25 railway stations in the state of Minnesota.

TABLE XI.—*Record of Tickets Sold in the Year 1902 and 1924 at Fifteen Stations in Minnesota Where There Was No Bus Competition.*

Station	No. of Tickets Sold			
	1920	1924	Decrease	Per cent
Benson	35,771	11,557	23,814	67%
Browns Valley	5,882	1,773	4,109	70%
Clare City	7,665	2,420	5,245	68%
Cottonwood	7,371	2,393	4,978	68%
Granite Falls	16,680	5,583	11,097	67%
Hallock	10,569	5,345	5,224	49%
Hanley Falls	10,925	3,011	7,914	72%
Herman	8,196	3,099	5,097	62%
Monticello	12,924	4,600	8,324	64%

57. Railway Age, Vol. 80, April 24, 1924, pp. 1158-59.

Ruthton	5,790	1,722	4,068	70%
Warren	16,844	7,739	9,105	54%
Ortonville	2,743	1,005	1,738	63%
Odesse	272	66	206	76%
Appleton	10,562	3,268	7,294	69%
Milan	312	115	194	63%
Total	152,106	53,696	98,410	64%

Similar Record at Eleven Stations Where There Was Bus Competition

Station	No. af Tickets Sold 1930	1924	Decrease	Per cent
Alexandria	37,398	15,429	21,969	59%
Delano	11,376	2,909	8,467	74%
Evansville	10,491	3,153	7,338	70%
Fergus Falls	59,422	26,868	32,554	55%
Jasper	12,624	4,460	8,164	65%
Lithfield	38,094	10,310	27,784	73%
Marshall	27,312	10,658	16,654	61%
Osakis	14,790	4,184	10,606	72%
Park Rapids	13,495	5,612	7,847	58%
Sauk Center	35,244	10,519	24,725	70%
Willmar	76,333	27,908	48,425	63%
Total	336,548	122,010	214,533	63.7%
Grand Total	488,649	175,706	312,943	64%

It is quite evident that private automobiles have absorbed the larger portion of the railroad passenger traffic lost in the past years and that as traffic congestion and parking regulations become more severe and a general knowledge is attained by the private automobile owner of the cost of supplying himself with this convenience, the motor coach will draw its patronage more and more from private automobile riders.

The Future of Motor Bus Competition—Motor bus operation is still in a state of transition. What bus competition with railroads in the future will be cannot be predicted. But several factors are at work and should be observed.

In the first place, there is a pronounced tendency towards larger and more responsible organizations. The records show an actual decrease in the number of operating companies. There were 6,900 operators in 1926 engaged in common carrier operation but this number decreased to 5,520 in 1929 and to 5,150 in 1930, which is a decrease of more than 20 per cent during a period of five years. There is a slight decrease in the number of busses operated, but the total carrying capacity has increased as shown by the bus miles operated and passengers carried. Finally, there is a rapid growth in the number of companies which operate fleets of 100 busses or more, including three transcontinental bus-line systems now in operation.[58]

TABLE XII.—*Trend of Common Carrier Bus Operation.*[59]

	1926	1927	1928
Number of Busses	34,000	34,000	33,350
Operation Companies	6,900	6,770	6,220
Bus Routes	214,200	232,500	248,900
Bus Miles (Millions)	1,360	1,490	1,685
Passengers (Millions)	1,363	1,524	1,683
Gross Revenue (Millions)	$ 275	310	350

58. I.C.C. Docket No. 23400, Examiner Report, p. 32.

59. From "Bus Facts ofr 1932," Published by National Association of Motor Bus Operations, p. 5.

	1929	1930	1931
Number of Busses	33,300	32,500	31,850
Operation Companies	5,520	5,150	4,564
Bus Routes	278,600	291,200	320,000
Bus Miles (Millions)	1,750	1,825	1,808
Passengers (Millions)	1,855	1,866	1,802
Gross Revenue (Millions)	$ 395	400	378

TABLE XIII.—*Growth in Fleets of 100 Busses or More.*[60]

As of December 31	Number of compaties	Miles of route	Number of Busse	Per cent of Total Revenue Busses
1921	2	380	588	4.5 a
1922	2	380	595	4.3 a
1923	5	620	1,078	4.3 a
1924	13	4,983	2,810	8.4
1925	21	8,890	4,771	11.8
1926	29	19,559	6,946	15.5
1927	36	23,042	8,492	18.2
1928	41	37,016	10,157	21.4
1929	43	71,353	11,998	24.8
1930	55	92,102	13,615	29.4
1931	54	80,219	13,539	29.8

a. Roughly approximate.

Table XIV shows that 54 companies in common carrier service in 1931 had fleets of more than 100 busses, an increase of 26% over 1929. All of them in this group have an investment of more than $1,000,000 and an earning capacity of about the same amount. They all together

60. Ibid, p. 25.

own one-third of the number of busses in revenue service and operate 22 per cent of the route mileage.[61]

With the larger companies lies the future of motor bus operation. They are, as a whole more financially stable and responsible and the service offered is more dependable. They are in a position to command managerial ability and to adopt sound principles of accounting and finance.

Another factor for observation is the progressive improvement in the types of equipment and facilities for bus service. Busses operated by the larger lines are usually equipped with reclining chairs, reading lights and other conveniences. They are heated in the winter and cooled with electric fans in the summer.[62] Bus terminal waiting-rooms are maintained in the large cities, providing ticket and information office, toilet facilities, lunch counter,

61. This tendency toward larger operating units is achieved through a gradual process of consolidation. With respect to the consolidation movement in the State of California, it was testified before the Interestate Commerce Commission:

"..... Take a typical illustration..... We will say 'A', all lines operating under the name of 'A' between Los Angeles and San Diego. There might be 60 individual cars running on that line. They have arranged with the broker to put the name 'A' on the cars, quote and sell their tickets for them, and as they came in they would draw up in front of the station and load in the passengers that might be there, and go on. Later these 60 men or their successors would combine into an association, later incorporate a company, and operate as one unit, as one corporation, with as many cars as might be required.

"That has been the growth of the stage business—the lines became consolidated into one operating company and that one operating company in time has been more or less buying smaller or feeder lines, or competitive lines, grouping the service into one complete service to cover the territory offered." (Motor Bus and Truck operation, I.C.C. Docket No. 18,300, Vol. vii, pp. 1797-1798, testinony, F. D. Howell.)

62. I.C.C. Docket No. 23400, Report by Examiner Leo. J. Flynn, p. 33.

porter service and accommodations for checking baggage.[63] Busses with sleeping accommodations have been constructed and operated, though without meeting any measure of success. Innovations that are conducive to the safety, convenience and comfort of passengers will naturally increase competition for railroads.

Two factors, working in opposite directions, are the highway congestion on the one hand and highway construction and improvement program on the other. Many people have entertained the thought that as the highways are becoming increasingly crowded, driving is made more dangerous and thus the use of motor vehicles would be discouraged. However, such highway saturation point has never been reached as yet due to the fact that many states have drawn up ambitious highway improvement programs, a substantial part of which has already been accomplished. The improvement of highways, moreover, can go forward almost without limit. Improved highways relieve traffic congestion at least for the time being and at the same time will certainly invite more motor operation, as the feeder or secondary roads do not, in general, lend themselves to common carrier bus operation.

Finally, the attitude of the regulatory bodies toward motor bus operation will promote or hinder its future development, according to their policies pursued. Sound and constructive regulation will put the business on stable basis. Wastefull and cut-throat competition will be prevented; irresponsible operations will be eliminated; and the public will be better protected. On the other hand, excessive tax burden will limit the usefulness of bus service. Unnecessary restrictions placed on size, weight will increase the cost of motor bus operation.

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63. Ibid., p. 35.

CHAPTER III

MOTOR TRUCK COMPETITION AND RAILROAD FREIGHT SERVICE

The Beginning of Motor Truck Competition—Motor truck transportation received its first impetus in 1914 with the outbreak of the European War. At that time the peak load of manufactured articles in the Eastern region, particularly in New England, together with the prompt movement of troops as well as war materials had pressed every available facility into transportation service and the steam railroads proved to be unequal for the task exacted from them. The use of motor truck was stimulated to a remarkable degree. The transfer of freight from the railroads to the highways was further accelerated by the increase in freight rates to meet the increasing cost of operation in the steam railway transportation first authorized by the Director General of the Railroad Administration and later by the Interstate Commerce Commission.[1] Moreover, the total neglect of this new form of competition by the railroad managers gave the motor truck its opportunity.[2] The principal causes for the rapid development of motor truck transportation are summarized as follows:

1. The impetus given to the motor truck transportation by the World War,

2. The indifferent attitude of railroad managers toward this new form of transportation,

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1. "Increased Rates, 1920," 58 I.C.C. 220.

2. Dixon, F. H., "Is Motor Competition Fair to the Railroads?" New York Evening Post, May 9, 1922, p. 14, col. 1-2.

3. The relative economy of motor truck transportation with respect to the transportation by horse-drawn vehicles,

4. The development in improved rural highways,

5. The demand of shippers for prompt service, and

6. The constant improvement in the mechanical efficiency of the vehicle.[3]

The Extent of Motor Truck Competition—Mainly as a result of these causes, trucks appeared on the highways in ever-increasing numbers. Table XV shows that the

TABLE XIV—*Production and Registration of Motor Trucks*
(Statistics from "Facts and Figures of the Automobile Industry.")

Year, ending Jan. 1st.	Production Number of vehicles	Wholesale value Dollars	Registration Numbers of vehicles
1904	411	$ 946,947	410
1905	450	970,000	600
1910	6,000	9,660,000	10,000
1915	74,000	125,800,000	136,000
1920	321,789	423,249,410	1,006,082
*1923	*426,505	*317,478,940	1,612,569
*1925	*557,056	*470,634,763	3,440,854
*1926	*556,818	*468,752,769	2,764,222
*1927	*497,020	*435,072,641	2,914,019
*1928	*588,983	*459,045,380	3,113,999
*1929	*826,817	*595,504,039	3,379,854
*1930	*599,991	*405,949,915	3,486,019
*1931	*434,176	*272,748,305	3,466,303

*Figures include production of plants located in Canada.

registration of trucks has increased from a little over a million in 1920 to about three and a half millions in 1931, an increase of 245 per cent during the period of the past eleven years.

3. "Commodity Transportation by Motor Truck," Public Roads, vol. 6, August, 1925, p. 124.

Inasmuch as interstate motor-vehicle carriers are not required to make reports of their operations to any federal authority, the extent of truck competition can only be estimated.

According to H. R. Trumbower,[4] the Economist of the Bureau of Public Roads of the U. S. Department of Agriculture, the average carrying capacity of motor trucks is about 1¼ tons. On this basis, the total potential capacity of 3,466,303 motor trucks in 1931 amounts to 4,332,879 tons. Assuming that the average annual mileage per truck is 10,000, we arrive at a potential carrying capacity of all trucks of 43,328,790,000 ton miles, if fully loaded all the time. But the various traffic surveys made by the Bureau of Public Roads of the Department of Agriculture show that only two-thirds of the trucks operating over the highways carry loads and that these loads average about 80 per cent of the capacity of the trucks. This gives a load factor of 53.33%. When the potential capacity is adjusted by this factor, it is reduced to 23,107,243,707 ton miles. Mr. Trumbower assumes further that half of the motor truck mileage is produced over city streets, non-competitive with railroads, and that one-half is produced on the rural highways, competitive with railroads. On this basis of division the estimated service rendered by motor trucks over rural highways is about 11,583,621,853 ton miles, which is a little less than 3% of the ton mileage of the steam railroads.[5]

The tonnage figures, however, do not reflect the true effect of truck competition, as trucks compete vigorously

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4. Trumbower, H. R., "Highways Largest Passenger Carriers-Railways, Freight," Railway Age, vol. 81, September 25, 1926, pp. 608-609.

5. The Interstate Commerce Commission reported 385,815,000,000 ton miles produced by the steam railroads in 1930.

for commodities assigned to the higher railroad freight classifications which produce greater revenue for the railroads in proportion to their volume of traffic. In 1930, the less-than-carload traffic of the Class I Railroads represents 2.6 per cent of the total freight carried but it contributes 10.2 per cent of the total freight revenue. The manufactures and miscellaneous commodities constituted 24.1 per cent of the total freight and 33.8 per cent of the total freight revenue[6] Trucks compete mainly for these two groups of commodities and are accused, therefore, of taking "the cream of freight traffic."

If the extent of truck competition is considered from the standpoint of the number of vehicles used and the amount of competitive mileage, motor transport companies and individuals operated 43,237 motor trucks in 1926 in the line haul service in competition with railroads, covering a total mileage of 552,630. Ninety-seven trucks were operated in terminal service.

TABLE XV—*Motor Trucks Competing with Railroads, as of December, 1926.*

Regions	Terminal Service		Line Haul Service	
	Number	Mileage	Number	Mileage
Great Lake	97	1,291	7,220	101,963
New England	—	——	3,392	84,346
Central Eastern ..	—	——	12,614	112,373
Pocahontas	—	——	260	3,951
Southern	—	——	2,250	46,978
Northwestern	—	——	3,981	63,569
Central Western ..	—	——	10,380	126,534
Southwestern ...	—	——	3,110	67,315
Total	97	1,291	43,237	552,630

(From I.C.C. Motor Bus and Motor Truck Operation, Statistical Summary of Answers made by Class I Railways to Questionaire in Docket No. 18300, December, 1926.)

6. I.C.C. Docket No. 23400, Report of Examiner Leo. J. Flynn, p. 65.

The Central Western, Great Lakes and Central Eastern regions had about sixty per cent of the competing truck mileage and seventy-five per cent of the competing trucks found in the whole country. Motor truck transportation in the New England Region is in general, considered on a tonnage basis, a non-competitive short-haul transportation of freight. With the improvement in rail service a considerable portion of the long-distance motor-truck freight will be shipped by rail.[7]

Motor truck competition is more keenly felt in certain localities than in others. Intensive competition is found around the large trade centers, such as Chicago, New York, Philadelphia, Boston; and, where it is close to state boundaries, motor truck operation becomes predominently interstate.[8]

Types of Motor Truck Operation—Truck Operation may be generally grouped into four classes:

1. The first type is the so-called "owner-operated truck" which, as its name implies, is owned by the operator and is used in the transportation of his own goods or products and in the conduct of his own business. This class includes the trucks owned and operated by manufacturers, merchants, jobbers, and others in the conduct of their business.[9]

2. There are the common carrier truck operators, relatively fewer in number, who operate on regular schedules over regular routes between fixed termini and hold themselves out to furnish transportation for all kinds of freight on published tariffs. Their rates are often fixed by regulatory bodies.

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7. Gordon, J. "Motor Truck Movement is Largely Non-Competitive in New England," p. 3.

8. Duncan, C. S., "Motor Bus and Motor Truck Operation," p. 21.

9. 140 I.C.C. 705.

3. The contract carrier represents a much larger and more important group of operators who dominate both intrastate and interstate operations. The contract carrier enters into special agreements for transportation with one or more shippers, but does not hold himself out to haul for the public generally.

In addition to transportation service, the contract carrier frequently furnishes certain accessorial services, such as moving furniture from one city and setting it up in another city. Heavy hauling which often requires special equipment and ordinarily can not be handled by trucks of the common carriers is another special service usually performed by contract carriers.

Motor truck contract service has the greatest advantage in its flexibility of movements. It is often engaged to rush shipments to industrial and municipal lighting or water plants for the replacement of some broken parts of the machinery. The Interstate Commerce Commission reported in its investigation on motor bus and motor truck operation in 1928 that, "In California fruits and vegetables mature in different sections of the State at different seasons of the year, and contract-truck operators move from one section of the State to another as the season advances. As the movement in any one section occupies but a few weeks, there is a demand for heavy additional truck service during the harvest, which is not necessary during the rest of the year, and this peak demand for quick transportation is supplied by contract carriers who are not held to fixed routes."[9]

4. The fourth type of motor truck operation is the anywhere-for-hire carrier who holds himself out to serve the public generally but does not operate over regular

9. 140 I.C.C. 705.

routes or on fixed schedules. This is in effect a common-carrier contract trucker.[10]

Available data do not permit one to state with any precision what part of the motor truck service is performed by the commercial trucks and what part by the owner-operated trucks. It has been estimated that shippers own some 82% of the trucks, contract carriers some 11%, and common carriers about 7%.[11] In Cook Country, Illinois, 17 per cent of the loaded trucks observed on the county highways were engaged in commercial transportation of freight, including both common carrier and contract service. The percentage of commercial transportation in other states is 8.7 per cent in Maine, 13.6 per cent in Pennsylvania, 21 per cent in Ohio,[12] 25 per cent in Connecticut, and 21 per cent in New Hampshire.[13] Approximately 75 per cent of the commercial truck haulage in Connecticut, from 50 to 65 per cent in Pennsylvania, and 50 per cent in Ohio are in contract hauling.[14] Of the 180,000 trucks observed in eleven western states by the Bureau of Public Roads, 5.5 per cent were common carrier and 8.7 per cent were contract operated; the balance, or 85.8 per cent, were privately owned.[15] As a whole, commercial trucks constitute less than one quarter of the total trucks on the highways and common carrier trucks are comparatively unimportant.

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10. I.C.C. Docket No. 23400, Report of Examiner Leo J. Flynn, p. 105.

11. National Automobile Chamber of Commerce, "Truck Facts for 1927," p. 14.

12. 140 I.C.C. 709.

13. "Motor Bus and Truck Operation," I.C.C. Docket No. 18300, Vol. viii, p. 4985, testimony McDonald.

14. 140 I.C.C. 710.

15. "Co-ordination of Motor Transportation," I.C.C. Docket No. 23400, Testimony of T. H. McDonald, printed by the National Association of Motor Bus Oerators, p. 4.

Types of Truck Service—Independent motor freight service can be divided into two distinct branches—the local distribution of commodities, and the long-haul truck transportation of special commodities.

1. Local distribution of commodities—This class of transportation includes the distribution of goods within cities and their suburban areas, and between cities and tributary areas. Motor lines operating in this field vary in size from those having one man and one truck to those large organizations with fleets of trucks and with personnel approximating railroads.[16]

There are two types of local distribution of commodities. First is the distribution of goods having both origin and destination within the local area, such as local delivery for department stores and other retail establishments supplementing the delivery services performed by the stores' own trucks in season of heavy traffic, local distribution service for jobbers, wholesalers, and other traders, special contract haulage service in connection with building operations and other projects, and the delivery of milk, garden truck, fruits and vegetables from rural areas to the cities. The second type is the completion by truck of the transportation service provided by rail and water facilities, such as the cartage service to and from railroad freight depots and steamship piers for all shippers and consignees requiring such service to supplement that of their own trucks or to take place of their own motor service, the extension of motor-truck service into areas without rail facilities, and the combination of rail and truck service for short-haul package freight in terminal areas and on congested trunk lines.[17]

Intra-city motor transportation of freight does not compete with railroads to any appreciable extent. Insofar

16. Johnson, Huebner, and Wilson, supra cit, p. 376.

17. McKay, J. G., "Commodity Transportation by Motor Truck," Public Roads, August, 1925, vol. 6, p. 125.

as it consists largely in the movement of freight to and from railroad freight stations, it is complementary to the service performed by the railroads. The transportation of freight within cities by truck other than to or from freight stations is not competitive with the railroads since in most cases the railroads would not obtain this traffic at all events.

Suburban trucking companies in many cases compete with railroads in short-haul package freight service in and near the metropolitan areas. The freight consists of small lots of merchandise and food-stuffs for distribution from the centers of population to the surrounding towns, and products of local industries from these towns to the cities. Most of this freight is carried in small packages and some in barrels, cases, and similar containers. Bulk freight is negligible in this type of service.[18] Truck competition for this class of traffic does not seriously affect the railroad earnings because the terminal expense incident to its movement constitutes so high a proportion of revenue received that it renders the operation unprofitable.

2. Long-distance freight transportation—Long-distance motor truck lines, serving cities, towns, and rural districts remote from one another, are more competitive with the railroads than any other form of motor trucking. They may be operated by individuals or organizations with one truck or several or by concerns having large fleets.[19] Motor carriers in the long-haul service may operate on definite schedules over fixed routes and accept all sorts of merchandise as common carriers. Carriers of this type connect virtually all the large cities of the United States.

18. Commission on Commerce and Marine, "Automotive Transportation and Railroads," pp. 57-58, Published by American Bankers association, 1927.

19. Johnson, Huebner, and Wilson, supra cit., pp. 379-380.

They may be commercial companies operating under contracts and carry only full loads for individual shippers.

Where the so-called long-distance hauling by trucks takes place, it is usually engaged in specially hauling, such as textiles of all sorts, household goods, livestock, office equipment, and construction materials;[20] commodities to which time is more essentially a transportation element than cost, such as goods requiring speedy transportation because of special market conditions, emergency shipments of various commodities, perishable goods, including fruits, vegetables, milk, dairy products, and other foodstuffs; or commodities which are not deemed advisable to be shipped by railroads, such as goods requiring additional packing when shipped by railroads so that expense of packing charges on the weight of containers and other expenses exceed the cost of transportation in lighter packing by motor, goods not accepted by railroads on account of high value or other characteristics, and mixed shipments which have to pay rates applying to the highest article if shipped by rail.[21]

The Nature of Truck Competition—The nature of truck competition may be first studied from the loss of railroad freight traffic. Less-than-carload freight on the steam railroads has suffered a steady decline during the past few years. In 1921 Class I railroads originated 41,922,011 tons of less-than-car-load freight. In 1929 and 1930 they respectively originated 36,043,271 tons and 29,666,721 tons, with related decreases of 14.17 and 29.35 per cent as compared with the less-than-car-load tonnage in 1921. The decline of less-than-car-load freight on Class II and Class III steam railways is even more noticeable. In 1920 Class II steam railways handled 3,729,558

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20. Daggett, S. R., "Principles of Inland Transportation," Harper and Brothers Publishers, New York and London, 1928 pp. 117-118.

21. Johnson, Huebner, and Wilson, supra cit., pp.. 381-382.

tons of this class of freight and in 1929 1,612,717 tons, or a decrease of 56.76 per cent. Class III steam railways handled 722,600 tons of less-than-car-load freight in 1920 and in 1929 482,228 tons, a decrease of 33.26 per cent.[22]

Even these figures do not fairly represent the actual loss in less-than-car-load freight traffic due to the fact that some of the freight formerly shipped in carload quantities is now being shipped in less-than-car-load lots. Under the present method of hand-to-month buying, with relatively small stocks of goods, fast delivery, and rapid turnover as its salient features, the tendency is toward shipments in smaller lots. Were there no diversion to other agencies of transportation, less-than-car-load freight handled by railroads should have shown considerable increase over the previous years; other things being equal.

The loss of less-than-car-load freight is greater for short hauls than for longer hauls. According to the reports by railroads to the Interstate Commerce Commission, reductions in less-than-car-load freight tend to become less as distance increases, with increases in volume generally for distances over 200 miles and in a few cases for shorter distances. Truck competition for this class of freight traffic is most severely felt for distances of 50 or 75 miles and it continues its importance up to 150 miles and in some cases to 200 miles. Where the aggregate volume shows no decreases, it is usually found that the loss in short-haul traffic has been compensated by the increase in the long-haul movement.[23]

Truck competition, however, is not wholly responsible for the loss sustained by railroads. Competition of the express companies and parcel post,[24] changed distributing

22. 182 I.C.C. 283.

23. 182 I.C.C. 284.

24. "Examiner's Report on Motor Transport," Railway Age, vol. 84, No. 4, January 28, 1928, p. 274.

methods, and the activities of forwarding or car-consolidating companies are also contributing factors. The decline in less-than-car-load business in 1930 and 1931 is attributable in major part to general conditions.

Railroad carload freight traffic, on the other hand, shows the opposite tendency. In 1920 Class I steam railways of the United States originated 1,202,218,695 tons of revenue carload freight, in 1926 1,296,651,334 tons, and in 1929 1,303,047,736 tons, representing increases of 7.85 per cent and 8.39 per cent respectively as compared with 1920. In 1930, the volume of carload freight originated declined 6.55 per cent. In 1928, the freight revenue on carload freight originated by Class I railways was $4,317,698,024, in 1929, $4,451,890,050 and in 1930, $3,777,145,342, an increase of 3.11 per cent and a decrease of 12.52 per cent, respectively, as compared with 1928.[25]

A few years ago truck competition was confined to short-haul, less-than-carload freight. Within the past two or three years, however, there is striking evidence of the diversion of carload traffic to the highways. This is made possible by the development of hard-surfaced highways, mechanical improvements in truck equipment, particularly with respect to pneumatic tires and special types of truck bodies adapted to the carrying of commodities requiring refrigeration and other traffic calling for special equipment, and by the operation with trailers. Among the commodities which have been hitherto considered by railroads as their invulnerable carload traffic and are now moved in large volumes by trucks may be mentioned cotton, fruits, lumber, canned goods, livestock, and many others.[26]

Types of Commodities Hualed by Motor Trucks—The nature of truck competition may be better understood

25. Interstate Commerce Commission, "Statisties of Railways in the United States."

26. I.C.C. Docket No. 23400, Report of Examiner Leo J. Flynn, p. 24.

by studying the type of commodities hauled by trucks, and the average length and capacity of trucks.

The type of commodities hauled by truck varies in different sections of the country. It depends largely upon the production in the area, the size and distribution of centers of population and to some extent the quality of service offered by other agencies of transportation.[27] The following table shows the percentage of principal commodities to total net cargo tonnage hauled by hired trucks in the several states.

TABLE XVI—*Percentage of Principal Commodities Hauled by Hired Trucks.*

(Percentage of net tonnage)

Commodity	Ohio	Connecticut	Pennsylvania	New Hampshire	Vermont
Products of Agriculture	9.2	7.2	9.0	9.0	8.4
Products of Animal	12.7	9.4	10.9	5.6	8.7
Products of Mines	16.9	9.6	13.1	11.6	19.9
Products of Forests	4.4	4.8	6.7	15.4	16.9
Manufactures	46.6	69.0	60.3	52.1	43.4
Miscellaneous	10.2	—	—	6.3	2.7

(From Traffic Surveys made by the Bureau of Public Roads, U. S. Department of Agriculture, in cooperation with the state highway departments of these states.)

It kill be seen from Table XVI that products of manufactures form the principal class of commodities transported by motor trucks. This class comprises as high as 69.0 per cent of the net cargo tonnage moved on the highways of Connecticut. In the State of Pennsylvania the percentage is 60.3 per cent, and in New

28. McKay, J. G., "Commodity Transportation by Motor Truck," Public Roads, vol. 6, August, 1925, p. 124.

Hampshire, 52.1 per cent. The more important commodity items in products of manufacture are bread and bakery goods, gasoline, mixed groceries, used household goods, beverage and bottles, wooden containers, and empty cans.

Products of mines are the second important class of commodities from the standpoint of percentage of total net tonnage. Clay, gravel, sand, stone, and coal, are the principal commodities of this class. Trucks engaged in this movement are, for the most part, large-capacity trucks hauling heavy loads.[28] The importance of this class of commodity movement by trucks is lessened considerably by the fact that transportation of these products is largely confined to areas containing coal deposits, stone quarries, and sand and gravel pits and also by the fact that the hauling fluctuates with the construction industry such as the construction of buildings, roads and bridges. Furthermore, the average length of haul is comparatively short.

Products of animals are also important as they comprise 12.7 per cent of the total net tonnage moving over the highways in Ohio, 10.9 per cent in Pennsylvania, 9.4 per cent in Connecticut, 8.7 per cent in Vermont, and 5.6 per cent in New Hampshire. Milk, meat, and other packing-house products are the principal commodities in this class.[29]

The principal commodities included in products of agriculture are fresh fruits and vegetables, feed and grain. Products of forests are the least important class

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28. U. S. Bureau of Public Roads and The New Hampshire State Highway Department, "Report of a Survey of Transportation on the State Highways of New Hampshire," 1927, p. 65.

29. U. S. Bureau of Public Roads, Traffic Surveys in the States of Pennsylvania, Vermont, New Hampshire, Connecticut and Ohio.

of goods hauled over the highway and are, like the products of mines, restricted to certain areas. A large portion of the miscellaneous commodities consists of loads of general express and freight, being mixed loads difficult to classify under any specific commodity.

Truck competition for some of the important commodities mentioned will be studied more in detail.

1. Transportation of livestock by trucks—Formerly, railways virtually monopolized the transportation of livestock from local communities to packing houses and centrally located stock yards, but now motor truck has claimed a substantial share of it. At the 16 principal livestock markets motor trucks have displaced in 1929 approximately 60,000 double-deck cars for hogs; 9,000 double-deck cars for sheep; 7,000 double-deck cars for calves; and 76,000 cars for cattle, or a total of 152,000 cars.[30] Table XVII shows the percentages of the livestock trucked into these markets in 1929 as of the total receipts.[31]

TABLE XVII

Market	Trucked (All Classes)	Per Cent of Total Receipts
Omaha	2,103,182	27.16
Sioux City	1,970,919	49.36
Indianapolis	1,715,324	60.32
St. Joseph	1,349,079	35.02
E. St. Louis	1,153,327	20.51
Kansas City	1,063,117	16.59
St. Paul	908,513	16.72
Cincinnati	687,044	35.01
Chicago	603,984	4.02
Wichita	457,512	35.08

30. I.C.C. Docket No. 23400, Report of Examiner Leo J. Flynn, p. 62.

31. Ibid., p. 61.

Oklahoma City	428,877	49.86
Fort Worth	344,287	16.96
Louisville	337,859	48.60
Denver	284,382	8.24
Milwaukee	241,137	19.16
Portland	127,362	23.45

Approximately one-half or more of the livestock was trucked into 4 of the 16 markets, over one-third moved into 3 other markets, and in only 2 markets was the truck movement less than one-sixth of the total. For all of the 16 markets truck movement represented 21.85 per cent of the total receipt.

Considerable variation in the intensity of truck competition existing in these 16 principal markets is caused by the differences in distance to market, by the differences in the directness of rail routes as compared with motor routes, by traffic conditions on the highways approaching the markets,[32] and by the differences in the proportions in which different kinds of livestock enter the various markets.[33]

Increased competition in the transportation of livestock is due to the superiority of truck service. The first advantage in using trucks for shipping livestock is that farmers can ship in less-than-carload units at almost any time they desire. This flexibility in the choice of time and amount of shipments enables them to take advantage of favorable market conditions and of temporary fluctuations in prices from radio broadcasting. Shipping in small units eliminates the need of mixing stock belonging to one

32. The exceptionally low percentage of livestock trucked into the Chicago stockyards is accounted for by the fact that motor trucks going to and from the stockyards in Chicago encounter considerable traffic congestion.

33. Hogs and calves move relatively short distances, therefore, they are more susceptible to truck competition than cattle and sheep.

shipper with stock of another. Truck shipments can be made during the cooler hours of the night while rail shipments are often made during the hotter hours of the day, thus reducing the number of animals dying in transit. Motor truck renders a direct transportation service between the farm and the stockyard without extra loading and unloading at railway stations and without waiting along the way for other loads to be added. The saving of time and the elimination of extra loading and unloading have accounted for the differences in the amount of shrinkage between animals trucked and those shipped by rail.[34] There is also a statement to the effect that the carload minimum required for rail movement is so high that it is cheaper for a stock producer to ship by truck.[35]

2. The transportation of milk by truck—Motor truck has gradually replaced electric railways and wagons in the transportation of milk and partially the steam railroads in the short-haul shipments. Approximately 90 per cent or more of the milk received in the cities of Cincinnati, Detroit, Indianapolis, Milwaukee, St. Paul, and Minneapolis is transported by motor truck instead of by railroad. About 20 per cent is trucked into Philadelphia, 32 per cent into Chicago, and 45 per cent into Baltimore.[36] The lower percentage of the milk brought into the above three large cities is explained by the fact that, owing to their heavier demands, they must draw their supplies from an area so large that the shipping distances become too great for motor truck haulage.

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34. Meredith Publishing Company, "Motor Truck in the Livestock Industry", 1930, pp. 4-6.

35. I.C.C. Docket No 23400, Report of Examiner Leo J. Flynn, p. 62.

36. Jardine, W. M., "The Public and Highway Transportation," 1925, p. 6.

Motor truck possesses several advantages over the railroad in the transportation of milk within the short-haul zone. Among them are (1) the motor truck passes the producer's gate and the driver of the truck acts as the producer's personal agent, performing a marketing as well as transportation service; (2) shipment by truck reduces the number of handlings from half a dozen or more to only two; (3) an estimated saving of 5 cents a hundred-weight results from the elimination of the haul from the railroad milk platform to the milk dealer; (4) motor truck saves an hour or more in time of delivery from the farm to the city milk plant within the short-haul limits; and (5) the farmer loses fewer cans.[37]

3. Transportation of automobiles by truck—Automobiles are now transported from plants to dealers by so-called "truck-ways." A single-deck truck can handle three or four automobiles of the smaller type and recently double-deck trucks have been devised to carry six or seven automobiles. A truck with a trailer can haul approximately the equivalent of a car and a half of automobiles.

Decentralization of assembly operations has contributed to highway movement. Other reasons for the diversion of this class of traffic from the railroads are found in the savings in freight rates and in the more complete and expeditious service rendered.

4. Distribution of magazines and newspapers by truck—Motor trucks are now employed, together with mail, buses, and airplanes, for the out-of-town distribution of newspapers and magazines which was formerly done by baggage or express trains. The traffic moved by private or contract trucks amounts to about 750,000 tons per year, while common-carrier trucks are used only to

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37. Jardine, W. M., "The Public and Highway Transportation", p. 7.

a limited extent as their schedules do not meet the distribution requirements.[38]

5. Transportation of coal by truck—There has been a great increase in the trucking of coal for the last few years, especially in the industrial states. In Illinois, the tonnage loaded by coal mines into trucks for local distribution was 3,316,858 tons in 1928 and 3,743,671 tons in 1929, an increase of 13 per cent. In Madison and St. Clair counties, the amount so loaded in 1928 was 569,192 tons and in 1929 714,878 tons, an increase of 27 per cent.[39] About 33 per cent of anthracite used at Reading, Pa., 50 per cent of the total anthracite used at Lebanon, Pa., and 40 per cent used at Harrisburg, Pa., are moved to those points by motor truck. The average length of haul in Pennsylvania is about 50 miles with tendency for further extension.[40]

One reason for the growth of truck movement is that by loading at the mines and carrying coal directly to destination, it is possible to make quicker delivery. It permits inspection of the coal before it is purchased and obviates the necessity of keeping large supplies of coal on hand.[41]

6. Distribution of fruits and vegetables by motor truck—It is estimated that in 1929 the total shipments of fruits and vegetables by motor truck to market for distances beyond 20 miles in the United States amounted to from 150,000 to 200,000 carloads or the equivalent of about

38. I. C. C. Docket No. 23400, Report of Examiner Leo J. Flynn, p. 64.

39. Beck, C. V., "Trucks Making Heavy Inroads into Short Haul Coal Traffic," Railway Age. vol. 92 February 6, 1932, p. 254.

40. I. C. C. Docket No. 23,400, Report of Examiner Leo J. Flynn, p. 58.

41. "State of Connecticut v. Yew York, New Haven & Hartford Railroad Co. et al," 161 I. C. C. 211,221.

12 to 16 per cent of the total production.[42] Shipments by motor truck represent replacements of rail and boat shipments. In some leading producing sections,[43] truck movement is relatively unimportant; but, for Connecticut and Delaware and parts of ten other states,[44] the percentage of fruits and vegetables shipped by motor truck as compared with those shipped by rail and boat is as high as 36 per cent.

Table XVIII is produced to show the adaptability of the various fruits and vegetables to motor truck shipping in areas adjacent to large consuming markets.[45]

Spinach stands at the top of the list with 90 per cent of the total shipments moved by motor trucks and cabbage appears at the other end with motor-truck shipments of only 12 per cent of the total. The figures in the above table point to the conclusion that the products moving in large percentage by truck are, in general, the light, highly perishable, or more valuable ones which either take a high rate by freight, or require refrigeration when shipped by rail, or have a minimum car-lot weight. On the other hand, those that move in small percentage by truck are the

42. Brice Edwards and J. W. Park, "The Marketing and Distribution of Fruits and Vegetables by Motor Truck", U. S. Department of Agriculture, Technical Bulltein No. 272, p. 4.

43. Maine, Florida, Minnesota, Idaho, and Washington.

44. Parts of Illinois, Indiana, Maryland, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, Virginia, and West Virginia.

45. Connecticut, 1928; Delaware, 1928; Illinois, Southern, 1928 crop; Indiana, 1928 crop; Maryland, Eastern Shore, 1928; Maryland, Western, 1928 crop; Massachusetts, Western, 1928; Michigan, Southwestern, 1929; New Jersey, Central and Southern, 1928; New York, Western, 1928 crop; New York, Hudson Valley, 1928; New York, Long Island, 1929; Pennsylvania, South central, 1928 crop; Pennsylvania, Southeastern 1928; Virginia, Eastern Shore, 1928; West Virginia, Cumberland-Shenandoah Valley Region, 1928 crop.

TABLE XVIII.—*Comparison of Rail and Boat Shipments with Estimated Motor-truck Shipments of Important Fruits and Vegetables.*[46]

Commodity	Shipments of fruits and vegetables by.....		Percentage shipped by motor truck
	Rail and boat cars	Motor and truck cars	
Spinach	43	1,028	96
Beans, string	191	1,472	89
Mushrooms	204	1,160	85
Asparagus (1)	214	676	76
Tomatoes	2,342	4,217	64
Strawberries (1)	2,744	3,741	58
Cantaloupes	1,897	1,790	49
Grapes	5,093	4,759	48
Peaches	5,277	3,988	43
Carrots	1,528	989	39
Celery	4,545	1,782	28
Cucumbers	2,228	743	25
Potatoes	41,702	14,219	25
Apples	29,127	9,437	24
Lettuce	3,266	882	21
Sweet potatoes	10,604	2,439	19
Cabbage	9,111	1,219	12
Onions	4,290	973	19

(1) Includes some shipments of miscellaneous character.

heavy, less perishable, or low rate products. Other factors that influence the relative movement of fruits and vegetables by truck and by other forms of transportation are: (1) distance of the producing area from important markets; (2) salability in volume in small as well as large cities; (3) perishability and high shipping cost by rail; and (4) the volume of production.

46. From U. S. Department of Agriculture, Technical Bulletin No. 272.

Truck transportation of cotton—During the past few years, motor trucks have invaded the carload field by divert-cotton traffic from rails to highways. Cotton is now moved by truck from the farm to central markets and sea ports, thus eliminating short rail hauls. In 1924, 99.2 per cent of the cotton to the gulf ports was handled by railroads, only 0.8 per cent going by trucks. In 1929, the relative figures changed to 85.3 per cent by rail and 14.7 per cent by trucks, and in 1930, 71.2 per cent by rail and 28.8 per cent by truck.[47] It is also variously estimated by railroads that from 1,000,000 to 1,500,000 bales of cotton were handled by truck during 1929 which were formerly handled by railroad service.[48]

The increase in the receipts of cotton by wagon and trucks at Houston, Texas, for the eleven-year period, as reported by the Houston Cotton Exchange and Board of Trade, is spectacular and illuminating in this respect:[49]

TABLE XIX.—*Receipts of Cotton at Houston by Wagon-sand Trucks from 1919-20 to 1919-30.*

Year	Bales	Year	Bales
1919-20	2,353	1925-26	50,671
1920-21	6,048	1926-27	50,784
1921-22	2,278	1927-28	95,335
1922-23	8,783	1928-29	221,486
1923-24	17,383	1929-30	226,617
1924-25	28,954		

47. Bird, Aldine R., "Motors" Challenge to the Railroads" Current History, vol. 34, May, 1931, pp. 238-239.

48. Moulton, Elna S., "Cotton Production and Distribution in the Gulf Southwest," 1931, p. 247, Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce, Domestic Commerce Series No. 49.

49. "Coordination of Motor Transportation," I.C.C. Docket No. 23,400; Hearings, Dallas, Texas, Nov. 28029, 1930, p. 40.

From the above study of the various types of commodities transported by motor trucks, it is clear that motor truck competition concentrates largely upon l.c.l. or merchandise freight and that truck transportation of commodities is generally selective in character. The list of commodities handled by trucks is, however, progressively extending to all kinds of traffic which truck operators think can be handled by that agency.

Length of Truck Haul—There is evidently no average length of haul by motor truck that can be said to be representative of the service and that could have any definite meaning. It is subject to the influence of many factors. In the first place, the length of haul depends upon the distance between centers of population and the ability to secure regular return loads. It is also influenced by the character of the commodity, whether perishable or not, whether bulky or small in volume, and whether valuable or of low value. In addition, it depends upon the shipping distances to market, the type of highway improvements, and the other types of transportation available.[50]

The Interstate Commerce Commission reports that 80.6 per cent of the loaded trucks in Pennsylvania, 63.7 per cent in New Hampshire, 78.4 per cent in Vermont, and 75.8 per cent in Cook County, Ill., moved less than 30 miles, while in Pnensylvania 67.0 per cent operated less than 20 miles. Only a small percentage of the truck movement exceeded 60 miles; in New Hamps 15.6 per cent, in Vermont 7.5 per cent, and in Cook County, Ill., 5.4 per cent. The average length of haul in Vermont is 24 miles, in Ohio 32 miles, in New Hampshire 32 miles, in Minnesota 40 miles, in Indiana 75 miles, in Connecticut 47.4 miles, in North Carolina 45 to 55 miles, and in Iowa 32 miles.

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50. Commission on Commerce and Marine, American Bankers Association "Automotive Transportation and Railroads," p. 62.

51. 140 I.C.C. 707, Motor Bus and Motor Truck Operation.

Recent traffic surveys made by the Bureau of Public Roads, U. S. Department of Agricultures, in eleven western states has confirmed the forgoing viewpoint.

TABLE XX.—*Percentage Distribution of Trucks for all States (the Eleven western states) by Daily Mileage.*

(From the Bureau of Public Roads, U. S. Department of Agriculture, "Report of a Survey of Traffic on the Federal-Aid Highway Systems of Eleven Western States." 1930)

Length of daily travel (miles)	Local	Foreign	All trucks
	per cent	per cent	per cent
Less then 20	6.6	3.3	6.3
20 to 39	14.2	7.6	13.5
40 to 59	16.3	8.2	15.5
60 to 79	14.4	9.9	13.8
80 to 99	9.4	6.6	9.2
100 to 119	10.5	8.5	10.3
120 to 139	6.9	7.2	7.0
140 to 159	6.2	8.3	6.5
160 to 179	3.4	6.2	3.6
180 to 199	2.0	4.3	2.2
200 to 219	3.6	8.4	4.1
220 to 239	1.3	3.1	1.5
240 to 259	1.8	4.3	2.0
260 to 279	.7	2.0	.9
280 to 299	.4	1.8	.5
300 and over	2.3	10.3	3.1

Nearly 50 per cent of all trucks travel less than 80 miles per day, while 58.3 per cent travel less than 100 miles. The arithmetic average of the daily travel of all trucks is 103 miles and the median is 82 miles. Although 80 miles

is not usually considered a short distance, it must be remembered that this distance is the mileage per day on rural highways, and that it represents one or more round trips from the origin to the destination.

Table XXI shows that the length of truck haul varies with the type of commodities transported.

TABLE XXI.—*Percentage of the Total New Tonnage Hauled in Connecticut by Mileage Zones, 1925.*[52]

	MILEAGE ZONE											
	0—0	10—19	20—29	30—39	40—49	50—59	60—69	70—79	80—89	90—99	100 over	Total
	Per cent of total net tonnage											
Products of agriculture	2.8	1.7	0.9	0.5	0 2	0.4	0.1	0.2	0.0	0.1	0.3	7.2
Products of animals	2.9	2.1	1.3	1.0	.6	.4	.2	.4	.1	.1	.3	9.4
Products of mines	7.5	1.4	.2	.2	.1	.1	.1	.0	.0	.0	.0	9.6
Products of forests	2.3	.8	.6	.3	.1	.1	.1	.0	.1	.0	.4	4.8
Products of manuufactures	20.8	13.2	8.6	7.1	3.0	3.6	1.7	2 0	.6	.8	7.6	69.0
Total	36.3	19.2	11.6	9.1	4.0	4.6	2.2	2.6	.8	1.0	8.6	100.00

Of the total net tonnage, 67.1 per cent was hauled less than 30 miles. Nearly seven-tenths of the traffic was merchandise freight which moved over longer distances than the goods of the other commodity groups. The movement of products of mines, agriculture, forests, and of animals was restricted to distances less than 30 miles, with only small quanties moved over longer distances.

52. Public Roads, vol. 6, August, 1925, p. 124.

TABLE XXII.—*Average Length of Haul of Principal Commodities Transported by Trucks over Several Areas.*[53]

Commodity	New Hampshire 1927 (miles)	Ohio 1927 (miles)	Vermont 1927 (miles)
Furniture (used)	84	117	100
Fresh fruits	50	33	36
General freight	40	38	—
Mixed groceries	39	26	22
Miscellaneous	33	34	28
Fresh vegetables	27	30	20
Bread and bakery goods	26	22	27
Lumber, finished	22	—	—
Bottles	19	16	10
Lumber, rough	18	19	20
Gasoline	16	—	13
Wood, cord, and kindling	14	—	10
Gravel, sand, and stone	9	10	4
Wooden containers	—	38	—
Milk	—	23	15
Empty cans	—	24	14
Other Dairy products	—	35	—
Meat and other packing house products	—	25	18
Beverages	—	23	—
General express	—	66	—
Coal	—	7	—

Among the articles that move over long distances are furniture, fresh fruits, general express, and miscellaneous manufactured products, all of which are of high value in proportion to weight and bulk. Heavy, bulky commodities, such as coal, sand and gravel, are usually limited to short hauls.

Capacity of Motor Trucks—Motor trucks operating over rural highways are predominantly trucks of small

53. From Traffic Surveys of Bureau of Public Roads, U. S. Department of Agriculture.

capacity. Trucks of ¼ to 2½ tons capacity constitute 79.2 per cent of the loaded trucks in Connecticut, 92.6 per cent in New Hampshire, one-fifth in Vermont, and 96.8 per cent in Maine. Trucks of 5 tons capacity or greater constitute only 0.4 per cent in Vermont, 1.8 per cent in New Hampshire, 11.7 per cent in Connecticut, and 0.3 per cent in Maine of the total number found on the rural highways.[54] More large-capacity trucks are found operating on highways near large cities but they, as a rule, do not move far from the centers of population.[55]

Factors in Truck Competition—Competition between rail and motor truck transportation chiefly centers around rate and service factors.

Comparison between truck rates and railroad freight rates is rendered difficult for the following reasons: (1) Motor carriers perform services which are not offered by railroads and, therefore, are not included in freight rates. Truck rates include pick-up and store-door delivery cost, while freight rates are station-to-station rates. (2) There is less packing for motor-truck shipment and consequently less gross weight in comparision with the net weight of the goods. Furthermore, packing requirements of motor carriers are by no means uniform throughout the country. (3) There are seasonal variations in motor freight rates. (4) Motor transportation charges are made for the most part by private contract carriers and often not published nor adhered to.

For the purpose of comparison, it is necessary to translate motor and rail freight rates into a common denomination. To the first class railroad freight rate will be added 30 cents per hundred pounds for cartage charges

54. Bureau of Public Roads, U. S. Department of Agriculture, Traffic Surveys.

55. McKay, J. G., "Commodity Transportation by Motor Truck," Public Roads, Vol. 6, August, 1925, p. 124.

to cover the haulage from the warehouse of the shipper to the railroad freight depot and from the railroad stations at destination to the consignee's store door.[56] Twenty-four cents per hundred pounds is estimated to be the increased cost of packing for shipments by rail as compared with the shipments by truck and 17 per cent of the rail rate as the cost of carrying the increased weight on account of heavier boxing.[57] Many commodities for which trucks are bidding require either the same packing for both rail shipment and truck movement or require no packing at all, whether they move by rail or truck.[58] In other cases, commodities are moved only in special truck bodies if packing is to be dispensed with.[59] As to all such movements trucks have no advantage in the cost of packing.

There are a number of instances where the rates of common-carrier trucks are either equal or higher than the rail rates. The common-carrier rates in Kansas, on the first four classes of traffic, generally equal the rail rate plus 5 cents per one hundred pounds. The average rates of common carriers between Kansas City, Mo., and Kansas points are 4.1 per cent above the corresponding rail rates. An important truck carrier in the Chicago territory charges rail rates on the first, second, and third class traffic and higher than rail rates on the fourth. The average of truck

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56. 100 I.C.C. 513,635, Testimony in the "Southern Class Rate Investigation" shows that it cost an average of about 30 cents per 100 pounds for the terminal services incident to the delivery and receipt of less-than-carload freight.

57. Banham, W.J.L., "Motor Truck and Railroad Freighting," pp. 2-3.

58. Such commodities included canned goods, sugar, dried fruit, soap, lumber, cotton, wool, certain fresh fruits and vegetables, gasoline and refined oil, hay, and cement.

59. Such as confectionery goods.

rates from Seattle, Wash., is consistently above the composite of first to fourth class rail rates. Between Seattle and Portland and in the reverse direction the average was about 20 per cent above the standard rail rates.[60]

In some sections of the country, common-carrier truck rates below the rail rates are found. Between Norfolk and Portsmouth, Va., and Virginia and North Carolina points, the truck rates of two lines are considerably below the rail rates. The average less-than-carload rail rate between New York and Philadelphia, plus the cost of pick-up and delivery, is about 57 cents per 100 pounds, while the average truck rate is 42 cents.[61]

The class rates of common-carrier truck operators in a few states are prescribed by law not to be less than rail rats, or not less than a given differential in excess of rail rates.[62] Some such operators face difficulty in meeting competition of interstate operators and have found it necessary to establish commodity rates or to make exceptions to the classification.

The rates of contract carriers are generally less than rail and are less stable than common-carrier rates. This is especially true regarding the rates on cotton, assembled automobiles, and coal.

Contract hauling at rates higher than rail rates is confined to traffic which requires a highly expeditious or specialized service, like livestock, fruits and vegetables, and household goods and furniture.

As a whole, there is no stability in trucking rates. They are often depressed below normal levels by the desire of the operator to secure return loads. This accounts for

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60. 182 I.C.C. 304.

61. Ibid.

62. South Carolina, Arkansas, Texas, and Wisconsin.

the fact that some operators maintain lower rates in one direction than in the other between the same points. Contract trucking rates may also be influenced by the emergency character of the haul as well as by the accessorial services rendered outside of the mere transportation of the property. Another disturbing factor in the rate situation is the appearance of "unemployed trucks" which have been released from operation in connection with certain industries due to business depression and now seek employment on the highways. These operators are inexperienced in commercial trucking and transport goods at any rate necessary to get the traffic.

From the standpoint of meeting highway competition, railroads are particularly handicapped by the rigidity of their rate structure so carefully interwoven throughout the country. If a carrier undertakes to reduce rates to meet a local competitive situation created by a truck operation, there is the liability of disturbing the general equilibrium of rates. Numberless adjustments would have to be made in other traffic in order to avoid any violation of rate regulations administered by the regulatory bodies[63] The loss in revenue thus sustained would far outweigh the gravity of the local competitive situation. Therefore, any attempt on the part of railroads to meet truck competition through the adjustment of freight rates is likely to be sporadic and unrelated to the general rate structure.

Service as a Factor of Competition—During the investigation conducted by the Interstate Commerce Commission on "Coordination of Motor Transportation," the consensus of opinion seemed to be that competition in the service is as equally effective as is the competition in rates. Motor truck service will be considered both from the standpoint of the shippers and of the operators.

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63. I.C.C. Docket 13,535.

Advantages of truck service to shippers may be summerized as follows:[64]

1. Overnight service—Motor trucks are able to provide overnight delivery on account of the small unit of operation. Railroad freight receiving offices usually open at 7:00 to 8:00 o'clock in the morning and close at 4:30 to 6:00 o'clock in the afternoon. A shipper must deliver his shipment to the rail freight station before it closes if it is to be forwarded the same day. At the destination the consignee can not secure his freight before the freight house is opened in the morning. Truck operators generally receive freight until late in the night and not infrequently offer their service at any time to suit the convenience of shippers. Trucks of large companies are operated over the roads during the night when there is minimum of highway congestion.

Economies attained by overnight service are the reduced inventories and stocks for the consignees, elimination of large storage facilities or warehousing, and the ability of the manufacturer to allow production to be scheduled to fill orders rather than to maintain complete stocks.

Overnight service is a very important element of competition for shipments between New York and Philadelphia. In 13 of the 15 firms under investigation, it was mentioned as the main reason, or one of the main reasons, for shipping by motor truck instead of by rail. The remaining two firms also considered it to be a material advantage of motor transportation.

2. Collection and delivery by one through transportation agency—Shipments by motor truck move directly

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64. Talbot, Russell W., "Why Shippers Use Trucks," Railway Age, Motor Transport Section, September 26, 1931, pp. 485-291.

from the plant of consignor to the store door of the consignee all through one type of transportation agency without transfer en route. Carload shipment by rail to a consignee without rail sidings must be delivered to the store door by local delivery trucks. Less-than-carload shipments must be transferred from motor truck at the receiving station of the railroad and reloaded into local trucks at the delivery end of the rail haul. This involves one rehandling for the former and two rehandlings for the latter as compared with one complete movement by motor truck. It is this rehandling process that has caused damage and loss to goods in transit.

The economy resulting from the collection and delivery service by motor truck is as follows:

a. Eliminating the necessity of making arrangements with local trucking companies for cartage service at terminals.

b. Eliminating the employment of a clerk to follow up arrival notices and see that the cartage service is being properly rendered.

c. Increasing the goodwill when the goods are delivered in good condition.

d. Removing the inconvenience and delay caused by the necessity of rushing shipments to take the place of those lost or damaged in transit.

3. Direct contact with transportation agency—Truck operators have a personal contact with their patrons and perform personal services which the railroads are unable to perform. They are usually in the nature of placing orders, inspecting goods purchased, making collections, and similar services.[65]

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65. I.C.C. Docket No. 23,400, Report of Examiner Leo J. Flynn, p. 49.

4. Non-scheduled rush service—On account of the small unit of operation, trucks are especially adapted to rush shipments. This service is valuable to those industries which manufacture partially or entirely to order. The emergency shipment of repair parts is important in keeping a plant in operation.

5. Store-door reconsignment without transfer—Store-door reconsignment without transfer is a definite gain to the jobber who, upon receiving the shipment, can give the truck driver further delivery instruction for a slight additional charge. In general this advantage is not a factor of importance in the competitive situation.

6. Settlement of claims—Due to their direct contact with the shippers, trucking companies settle all claims for loss and damage with promptness and sureness. Again, this advantage is doubtful in nature. Motor common carriers frequently limit their liability by provisions in their bills of lading, or they may restrict their liability to damage known to have been done by the employees of the companies. Most of the shippers require the trucking companies to furnish statements of the amount of cargo insurance they carry. The railroads, due to their financial ability, pay all claims for loss and damage. Therefore, there is very little difference in the ability to collect reasonable claims from either the railroads or the trucking companies.

7. Factors pertinent to particular business involved—In some cases trucks are asked to render certain accessorial services beyond the mere transportation of property. Manufacturers often employ motor trucks to make C.O.D. deliveries to small consumers. Some trucks are used to distribute such commodities as iron pipes at designated points along the route. Railroads naturally can not undertake to perform such services for their patrons.

8. Frequency of service—Revolutionary changes have taken place in business practices especially with respect to distribution. Manufacturers now resort to direct distribution to retail stores. It is also the practice of wholesalers and retailers to buy in small amounts and hold small stocks of goods. All these changes would be impossible of realization were there not motor truck service to insure the shipments of goods on short notice.

9. Special service to farmers—The motor truck is useful to farmers in providing farm pick-up, eliminating handling and cartage charges, simplifying crating, and delivering the farm products early the next morning in time for the city market. In this way it has been the instrument in bringing about a wider market for the farmers than they have enjoyed before[66]

Advantages of truck service from the standpoint of truck operators are flexibility in operation, minimum investment requirement, and selective service.

1. Flexibility of operation—Railroad are bound to perform transportation service between fixed termini and over fixed routes. If any route proves unprofitable, the capital sunk in its construction is for the most part incapable of being shifted for employment elsewhere. No such regidity attaches to motor-truck operation. Motor vehicles are free to go to any part of the country where traffic is to be had. This is particularly advantageous when the traffic is seasonal, such as in the movement of agricultural products. Time schedules can be readily adjusted as necessity, convenience, and public demand may dictate.

2. Minimum investment requirement — Motor-truck operation can be started with comparatively little capital. The unit of operation is the single vehicle, not a whole

66. Johnson, Pyke, "Regulation or strangulation of Highway Transport." p. 5.

system as is the case with a railroad. Thus truck service can be successfully operated where the traffic would be altogether too light for the railroad.

3. Selective service—Contract truck operators, and to some extent common carriers where not required by regulation, are under no obligation to give a full community service. They select their tonnage and solicit only high revenue-producing traffic, leaving to the railroads commodities that are not de sireable from a transportation standpoint.

Conclusions—There is a striking contrast between motor bus and motor truck competition with railroads. In 1930 the common-carrier motor busses produced about 41% as many passenger miles as the steam railroads,[67] while the truck tonnage was a little less than 3% of the ton mileage of the steam railroads.[68] Therefore it is the motor bus competition with which the railroads are more seriously concerned. Moreover, a large proportion of the rail traffic lost to the motor truck seems more capable of being recovered by the railroads through coordination than that lost to the motor bus.

The nature of truck competition in the future is not easy to prophet, but certain important factors should be noticed. There are several factors favorable to the growth of truck competition. Extensive highway construction and improvement will no doubt encourage further truck operation and reduce its operating cost. Most of the trucks now use pneumatic tires which greatly increase their speed and consequently the radius of operation. These two factors combined have resulted in the longer average truck haul. There is also evidenced a remarkable tendency toward stability in the industry. The service is more

67. Common carrier bus passenger miles in 1930 were 11,130,000,000 and the rail passenger miles were 26,876,000,000.

68. See page.

dependable and there are fewer casual, "fly-by-night" and irresponsible operators in the field than before. Consolidations have created stronger organizations with conservative financing and with a greater responsibility to their shippers.

Regulation both interstate and intrastate may be constructive or destructive. If regulation aims at the elimination of irregular operators from the field and the prevention of unfair competition and ruinous rate-cutting, it will in the long run put the operation on a sound economic basis, thus benefitting all interests concerned. But regulation can also be burdonsome. Unnecessary restrictions on the size and weight of trucks will increase the operating cost. High motor taxes may render some useful truck service unprofitable and deprive certain communities of the benefit of the new transportation facilities.

Excessive competition between the commercial motor truckers has resulted in loss in some cases and in small margin of profit in others and has caused high mortality in the industry. Most of the operators know very little of their costs of operation. A few of the larger companies do keep their cost records but there is still considerable ground for improvement. Careful cost keeping will enable the operators to determine profitable and unprofitable business, to determine rates that would bring remunerative returns sufficient to pay operating expenses, taxes, depreciation and maintenance and earn a fair return on their investment, and to select the proper operating equipment to serve the needs of the communities.

The Interstate Commerce Commission has summarized the whole situation in the Fifteen Per Cent Case:

> Movement by truck is a new form of competition which has been developing with great rapidity. It has been principally effective on less-than-carload traffic, and relatively short hauls of such commodities as livestock, cotton, cement, sand and

gravel, gasoline, fruits and vegetables, and general merchandise; but it is continually extending to more and more traffic, and for longer distances, as truck and trailers are enlarged and highways improved. At present it is aided by prevailing low prices for gasoline and rubber and the oversupply of labor. In addition to rates, advantages which it offers to the shipper are in rapid and flexible service, store-door receipt and delivery, the transportation at carload rates of much smaller lots than are possible by railroad, and elimination of costly railroad packing requirements. The carriers introduced evidence to show that it would be feasible fo the trucks to divert only a comparatively small amount of additional tonnage, even if the rates were increased. But without exaggerating the menace of this form of competition, we are convinced that the carriers have underrated it, and that its possibilities are materially greater than they are prepared to concede.[69]

69. 178 I.C.C. 539, "The Fifteen Per Cent Case.", 1931.

CHAPTER IV

THE EFFECTS OF MOTOR COMPETITION UPON RAILROAD TRAFFIC AND THE RAILROADS' METHODS OF MEETING IT

The Beneficial Effects of Motor Transportation upon Railroad Traffic—From the standpoint of traffic, the automobile industry is a very important one to the railroads. In 1931, automotive freight on railroads amounted to 3,106,645 carloads and produced $396,738,000 in revenue. This amount constituted 12.6% of all carload traffic originated on railroad, and 12.01% of railway revenue.[1]

TABLE XXIII.[2]—*Proportion of Automotive Freight to All Carload Traffic on Railroads, 1931.*

Commodities	All traffic car loads	Automotive freight on railroads	Per cent
Products of manufactures and miscellaneous	7,816,414	2,254,845	28.8%
Products of forests and mines ..	11,181,786	851,800	7.6%
All other carload traffic	5,633,771	——	——
Total carload traffic originated	24,631,961	3,106,645	12.6%

1. The total freight revenue of steam railways of class I, II, and III in the United States for the Year ended December 31, 1931, amounted to $3,302,323,718. (Bureau of Statisties, Interstate Commerce Commission).

2. Figures from "Facts and Figures of the Automobile Industry," 1932 edition.

TABLE XXIV.[2]—*Automotive Freight Originated on Railroads, 1931.*

	Automotive Freight in Carloads
Gasoline	1,330,000
Iron and steel	96,000
Motor vehicles, parts, tires	410,845
Coal	60,000
Crude petroleum	55,000
Lubricating oil	53,000
Lumber	22,000
Road and fuel oil	39,000
Crude rubber	11,800
Asphalt for roads	48,000
Brick, vitrified	50,000
Cement for roads, bridges	236,000
Gravel, sand, stone for roads	655,000
Miscellaneous, such as non-ferrous metals, paints, upholstery materials	40,000
Total Automobile Freight, carloads	3,106,645

In addition to the direct benefit, the railroads have gained much indirectly from the phenomenal development of the automobile industry which has raised the level of living of the entire population and adds, at the same time, great impetus to the industrial activity of the country generally. Remote residential districts have been opened up, thus lengthening the economic radius for the season-ticket holders who formerly were obliged to live within walking distance from the suburban stations of the railroads. The motor bus has also developed many remote villages into useful feeding areas for railway passenger traffic. Railroad tourist traffic has been stimulated due to the fact that at the end of a rail journey, the tourists usually find that the country is made more accessibly by automobiles.

Before the advent of the motor truck, freight had to come to the railway depots by horse-drawn wagons. There was a definite limit to the distance which the horse could travel in carrying goods to the railroads. Now the truck has multiplied that distance three times at least.[3]

Adverse Effects upon Railroad Operation—The automotive freight on railroads is, however, more than offset by the loss of rail traffic caused by highway competion as analyzed in the previous chapters.

The adverse effect of highway competition does not stop at the loss of traffic but has also caused a decrease in revenue produced by the traffic that remains on railroads.

TABLE XXV.

Year	Average Receipts per Ton-mile (Cents)	Reduction in Freight Revenue Due to Declining Average Receipts per Ton-mile Compared with 1921	Average Receipts per Passenger-mile (Cents)	Reducation in Passenger Revenue Due to Declinin Average Receipts per Passenger-mile Compared with 1921
1921	1.275	$ ——	3.09	$ ——
1922	1.777	332,500,000	3.03	21,281,977
1923	1.116	656,236,000	3.02	26,569,587
1924	1.116	617,580,000	2.98	39,699,975
1925	1.097	736,589,000	2.94	53,925,335
1926	1.081	860,868,000	2.94	53,216,288
1927	1.080	836,037,000	2.90	63,934,441
1928	1.081	829,855,000	2.85	75,843,220
1929	1.076	890,170,000	2.81	87,007,578
1930	1.063	812,913,000	2.72	99,214,853

(Estimates of the reduction of revenue are based on the annual report of the Interstate Commerce Commission.)

3. Davenport, E. H., "Railways versus Roads," p. 8.

The decline in the average receipts per passenger-mile is due to fare reductions, especially excursion fares, on account of motor competition. The average receipts per ton-mile, on the other hand, represent many factors, such as changes in commodities handled, distances hauled and others. They do not reflect accurately, therefore, rate reductions to meet truck competition, but they do show conclusively the trend and the effect of motor competition.

What are the economic effects of the loss of traffic by railways? Since the loss occurred largely in the short haul traffic of passenger and freight service and since short haul traffic is considered unprofitable to railroads, particularly the less-than-carload freight, highway advocates, therefore, infer that motor competition has in fact relieved railroads of the burden of carrying this type of traffic and that railroads with the equipments thus released could perform transportation with better advantage. More specifically, they claim that the railroads can now carry greater amounts of carload freight, eliminate local and way-freight train operations, and maintain faster through train schedule. Good rather than harm is done.

While the force of the above argument cannot be denied, it should not be accepted without qualification. Railway transportation is an industry subject to the law of increasing returns. Fixed costs bear a very high proportion of the total costs of transportation. There are a large number of expenses a portion of which is now charged to the short haul tonnage which would not be materially reduced through its abandonment. If the typical railroad were fully equipped to handle economically all of the tonnage offered, then every additional ton is worth taking if it pays even a very small excess over the "out-of-pocket" expense of rendering the service, exclusive of the constant charges which must be met by the traffic as a whole. It is only when there is no unused capacity, i.e., when facilities are taxed to the limit by freight of all classes, that it will

be in the interest of the railroad to give up that portion of the unremunerative traffic that fails to earn a revenue which would contribute to its fair share of the constant charges. As professor Cunningham points out, this will be true provided the law of increasing returns has already ceased to operate.[4]

Furthermore, railways have the common carrier obligation to render continuous and regular service to the public. Train schedules are under the regulation of state as well as federal government, the elimination of which can only be affected with the consent of the regulatory body and with the demonstration that public convenience will not be jeopardized through the abandonment. In consequence, a number of local trains continue to be operated at loss.[5] The loss of diverted tonnage simply means higher unit costs on the remainder of the traffic.

Highway Competition and Railroad Abandonments—The Transportation Act of 1920 provides that no carrier by railroad subject to the Act may abandon all or any portion of a line of railroad, or the operation thereof, unless there has been obtained from the Interstate Commerce Commission a certificate that the present or future public convenience and necessity will permit of such abandonment.[6] Since 1920 until May 1, 1926, the Interstate Commerce Commission had authorized the abandonment of 120 lines and branches, a total of 2,438.95 miles. Exhaustion of natural resources had been responsible for 57.8 per cent of the abandoned mileage and competition of other railroads brought about 29.3 per cent of the abandonment, while only 4.3 per cent of the total abandoned mileage can be attributed

4. Cunningham, W. J., "Coordinated Rail-Highway Service," Railway Age, vol. 81, November 27, 1926, p. 1084.

5. Duncan, C. S., "Problems of Rail Highway Transportation." p. 100.

6. Transportation Act of 1920, paragraph 18 of Section I.

to motor-vehicle competition.[7] The last factor has become increasingly important as revealed by the fact that of the 4892.23 miles of railroad abandoned since 1920 up to October 31, 1928, 15 per cent was due to motor competition.[8] During the past five years almost 75 per cent of the applications for authority to abandon rail lines named motor competition as one of the reasons for the cessation of operation.[9]

Many railroad agency stations have been closed on account of motor competition. The diversion of traffi to motor vehicles is so serious that the continuance of these agency stations is an unwarranted expense, though the pride on the part of the communities would certainly have them maintained regardless of use. The Illinois Central has closed 65 stations since January 1, 1926.[10]

Records do not show the effect of motor competition upon the amount of railroad service since partial discontinuance of service, passenger and freight, is not an abandonment and consequently does subject to the approval of the Commission.[11]

The Interstate Commerce Commission in considering applications for abandonment of an existing line of railroad examines the financial ability of the carrier for continuous operations. The mere fact that a branch line of railroad does not yield a profit from operation will not

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7. Trumbower, Henry R., "Railroad Abandonments and Their Relation to Highway Transportation.", Public Roads, vol. 6, October, 1925, p. 171.

8. Hypps, Frank T., "Federal Regulation of Railroad Construction and Abandonment under the Transportation Act of 1920.", p. 63.

9. "Coordination of Motor Transportation," I.C.C. Docket No. 23,400, Examiner Report p. 85.

10. Ibid., p. 86.

11. "Public Convenience Application of Kansas City Southern Railway"., 94 I.C.C. 692.

in every case justify its abandonment, if the carrier is making a return from its operations as a whole.[12] On the other hand, there is a point at which lack of earning power will justify the abandonment of a portion of a system regardless of the prosperity of the system as a whole. The point at which abandonment is permitted is a matter of sound judgment to be exercised by the Commission.[13]

In following the requirement of the law that no carrier shall abandon all or any portion of a line unless there has been found that the present or future public convenience and necessity permit such abandonment, the Commission usually grants the application when it finds that other means of transportation are used and may be extended to meet all requirements.[14] In granting the application for abandonment of branch line by the Seaboard Air Line Railway Company, the Commission found that there was no public necessity for the continued operation of the branch line at a loss as the light agricultural development in the territory was being satisfactorily handled by trucking over to the main line of the applicant's railroad.[15]

Recently in several leading cases, the Interstate Commerce Commission has decided that the public convenience is served after the abandonment of lines or service

12. "Abandonment of Branch by Pere Marquette," 72 I.C.C. 267.

13. "Abandonment of Line by Southern Railway," 105 I.C.C. 228,233.

14. "Abandonment by Fonda Johnstown & Gloversville Railroad Company," 158 I.C.C. 387.

15. "Abandonment of Branch Line by the Seaboard Air Line Railway Company," 138 I.C.C. 715.

provided motor-carrier service is substituted.[16] A case in point will illustrate this policy of the Commission. In 1929, the Old Colony Railroad Company and the New York, New Haven & Hartford Railroad Company filed a joint application with the Commission for a certificate that the present and future public convenience and necessity permit the abandonment by them of a ferry between Fairhaven and New Bedford, a distance of 0.8 mile, in Bristol County, Mass. The ferry service was performed by motor boat, for the transportation of passengers only. The principal concern was the need of provision of an adequate connecting service in lieu of the ferry. The Commission has inserted in the certificate the provision that "the applicants furnish without additional charge to passengers, a suitable automobile or motor-coach transfer service between the wharf of the New England Steamship Company at New Bedford, Mass., and the railroad station at Fairhaven, Mass., for the accommodation of such passengers and their hand baggage as travel between New York City or points west and points east of Fairhaven, Mass., on through tickets sold at rates contained in the through published tariff via the New England Steamship Company's New Bedford-New York line and the New York, New Haven & Hartford Railroad."[17]

Efforts of Railroads to Meet Competition on the Highways without Coordination—Methods experimented by railroads to meet motor competition may be grouped into (A). operating and traffic adjustments, (B) proposal of remedial changes, (C) efforts to reduce highway competition through the buying out of independent motor operators or through opposition before public utility com-

16. "Abandonment by York Harbor & Beach R. R.", 117, I.C.C. 695; "Long Island Railroad Company Abandonment," 162 I.C.C., 363.

17. Abandonment of Ferry By New York, New Haven & Hartford Railroad Company, 150 I.C.C. 415.

missions to the granting of permits to independent operators.

Most of the operating and traffic adjustments without coordination involves a reduction of passenger fares and freight rates, a reduction of operating expenses, and the refinements of service.

1. Passenger fare and freight rate reduction—In an attempt to bring back passenger traffic to rails, some of the roads have authorized general reductions in fares to lower than the standard 3.6 cents per mile. Experiments of this kind are usually limited to a certain division every day for an extended period for the purpose of testing the possible result.[18] Reduction in passenger fares applying to local hauls was not successful. Reduced fares on long haul travel have been undertaken more recently by carriers on transcontinental movements and system movements other than local hauls. Effective in January, 1931, rail carriers have established 3-class transcontinental rates, which embrace the standard rate of 3.6 cents per mile, the "tourist class" or intermediate class fares and second class fares good only in day coaches. The latter two classes are respectively about 80 and 50 per cent of the standard rate.[19]

In as much as there is little possibility of inducing the general public to abandon their private cars in favor of railroads, the hope lies in the recovery of that portion of the business that has been lost to bus lines. Since low cost appears to be the prime consideration with the bus

18. Proceedings of American Association of Passenger Traffic Officers, 1927, "Outstanding Experiences of Year 1927 in respect to Means Employed by Carriers in the Development and Retention of Passenger Traffic; Also the Results Obtained from the Authorization of Tourist and Convention Fares, Cheap Excursion and Other Expedients to Increase Passenger Revenue," p. 60.

19. I.C.C. Docket No. 23,400, Examiner Report, p. 39.

patrons, it naturally follows that a reduction in passenger fares would result in the return to the railroad of a large portion of this bus travel. On the other hand, any general reduction in coach fares should be compensated by a sufficient increase in business so that the gross revenue would show an increase.[20]

Closely allied with general passenger fare reduction are special excursion rates, applied on various occasions. The Chicago and Northwestern Railway instituted one-day, round-trip shoppers' excursion fares from their suburban points to Chicago. The rates gave them about a third more revenue than if the passenger used the 25-ride bearer communtation ticket.[21] The Pennsylvania Railroad placed on sale from February to October, 1928, at all stations within the Philadelphia-Camden suburban zone within a 40-mile radius, a one-day excursion ticket on the basis of one fare plus 10 per cent for the round trip. This represented a reduction of 45 per cent on the regular fares previously in effect. The result showed a decrease over the previous year of 21.3 per cent in the number of passengers carried and a decrease of 27.3 per cent in revenue. The arrangement was withdrawn after the 1928 experience.[22]

The railroads have also experimented with popular coach excursion fares over the week-ends. These excursions, if well planned and well timed, will attract passengers, but if they are run at too frequent intervals they will lose their appeal.[23] The experience of the Chicago

20. "The Division Superintendent a Man of Diversified Duties," Railway Age, August 15, 1931, p. 255.

21. American Association of Passenger Traffic Officers, super cit., p. 59.

22. Deasy, J. F., "The Coordination of Rail and Highway Transportation," p. 8.

23. "Coordination of Motor Transportation," I.C.C. Docket No. 23,400, Examiner's Report, p. 71.

and Northwestern Railway has shown that some of this traffic is newly created, especially from the smaller places into such centers as Chicago, St. Paul and Minneapolis. Excursion fares between large commercial centers, except over holidays, cut in extensively on regular one-day travel.[24]

There are still other types of excursion fares. Summer excursion fares have been put in effect to attract tourists to National Parks and seashore resorts.[25] Railways in the Midwest have authorized coach excursion fares of about one cent per mile for the various state fairs. They have met varying degrees of success.[26]

Attempts have been made by railroads to install fares for small parties in order to compete with buses. The results of this experiment, however, by both the Central Railroad of New Jersey and the Great Northern Railroad were discouraging.[27] Obviously the bus will pick up a party at a more convenient point than the railroad station and will deliver passengers at destination.

In order to meet truck competition, railroads in the Southwest and Southeast have made radical reductions in freight rates upon certain competitive traffic. In some cases, reductions as high as 54 per cent have been made on rates applied to cotton.[28] The Eastern railroads have also found it necessary to voluntarily reduce their rates

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24. American Association of Passenger Traffic Officers, super cit., p. 59.

25. Deasy, J. F., "The Coordination of Rail and Highway Transportation," p. 81.

26. American Association of Passenger Traffic Officers, 1927 pro., p. 60.

27. Ibid., pp. 62, 68.

28. Duncan, C. S. "Problems of Rail-Highway Transportation," p. 113.

on some of their remunerative traffic in the higher classes. These rate reductions are brought about both by reductions in the Official Classification ratings and by the establishment of numerous specific commodity rates. For example, the Executives of the Eastern Railways have directed the reduction of the Official Classification carload rating on passenger automobiles, motor trucks and automobile chasis from 110 per cent of first class to first class. For the short distances where truck competition is especially keen, commodity rates are found necessary to retain traffic to the rails.[29]

Various causes have been operating to prevent railroads from putting into effect reduced freight rates on a broad scale.

> Reductions on various other commodities have been held back by reason of the lack of stability of truck rates and the general expectation that reduced rail rates would be followed by reduced truck rates; by reason of the fear that reduced rates where competition is felt would jeopardize the whole of an interrelated rate structure; and by reason of the belief that standard rail rates on some commodities are so low that reductions would be impossible or that truck rates, especially back-haul rates, are so low that rail competition is practically out of the question. The railroads also call attention to the difficulty of accomplishing anything by reduced rates in those instances where the shipper desires pick-up and delivery service or attaches importance to the smaller lots in which he can purchase shipments which move on truck rates or to the special services attending truck movement.....
>
> In view of the conditions attending truck movements, it seems reasonable to conclude from the experience to date that there is much traffic of the type sought by trucks which railroads cannot hold or regain by reduced rates; that there is some such traffic which, under favorable conditions as to truck

29. Collyer, R. N., "Statement for Railway Traffic Executive" before I.C.C. in Docket No. 23,400, published by Association of Railway Executives in "Rails and Roads."

competition, especially the absence of wildcat, peddler, or backhaul movements, they can recapture in part; and that in the case of less-than-carload traffic, where the margin between rail and truck rates is not great, the railroads have more opportunity to compete, although as to many shippers effective competition is out of the question in the absence of pick-up and delivery and other services which railroads do not commonly afford. Meeting truck competition for at least less-than-carload traffic appears to require a change in the methods of rail service as a prerequisite to any other efforts toward recapturing the business.[30]

2. Reducing operating expenses—Reduced traffic has made it imperative for the said carriers to adjust their operating expenses. Efforts in this direction embrace the substitution of rail-motor cars for steam trains, the reduction of station expenses, the reduction of oversupplied freight service, and electrification.

Railways are finding the rail-motor car[31] to be an efficient and economical substitute for the steam passenger train on branch lines and light-traffic main lines where the traffic available is inadequate to cover the out-of-pocket expenses of steam train operation. This type of equipment was originated in 1905 and had a steady growth until 1915, after which there was a period of inactivity. In 1921, renewed interest was shown and from this time onward a great increase in the number of cars was noticed.[32] At the end of 1930, the number of motor cars and trailers in the service of Class I steam railways was 5,594, distributed as follows:

30. 182 I.C.C., 332-333.

31. The rail motor car is an internal combustion engine with transmission and control equipment that are used to propel railroad rolling stock on the rails.

32. American Railway Association, Mechanical Division, Report of Committee on Automotive Rolling stock, 1927 Proceedings, p 266.

TABLE XXVI[33]—*Classification of Motor Cars and Trailers Owned or Leased in Service of Class I Steam Railways, December 31, 1930.*

	Total	Freight-Train Cars		Passenger Cars		Combination Passenger Cars		Other Passenger Trains	Company Service Cars
	Number	Number	Aggregate Capacity (tons)	Number	Total Seating Capacity	Number	Total Seating Capacity	Number	Number
Eastern district	4,247	1,045	40,714	2,596	192,192	432	21,518	113	70
outhern district	424	—	—	356	28,322	37	1,529	19	12
Western district	923	—	—	348	29,783	372	17,878	195	8
All districts:									
Electric	2,541	60	160	2,245	168,135	171	8,887	53	12
Storage battery	—	—	—	—	—	—	—	—	—
Gas-electric	581	—	—	46	3,001	398	19,727	132	5
Oil-electric	6	—	—	—	—	4	212	2	—
Gasoline motor	227	—	—	15	748	181	8,712	17	14
Steam	1	—	—	—	—	—	—	1	—
Power not otherwise specified	5	—	—	—	—	—	—	—	5
Trailer cars	2,233	985	40,554	994	78,363	78	3,337	122	54
TOTAL	4,960	1,045	40,714	3,300	250,247	832	40,925	327	90

33. Interstate Commerce Commission, "Statistics of Railways in the United States.", 1930.

The cost of operation of these motor car trains varies with different roads under different operating conditions. It usually ranges from about 35 to 65 cents per train mile, including interest and depreciation.

Table XXVII shows concisely comparative cost of a typical 85-ton, two-unit, 275-horse power gas-electric train and the steam train which it replaced.[34]

TABLE XXVII.—*Cost per Train-mile (Cents)*

	Steam Train	Gas electric
Wages—engine and train crew	28.50	17.90
Fuel—coal or gasoline	28.00	18.01
Lubricants	1.01	1.01
Terminal—inspection and engine house expense	2.00	1.25
Labor—cleaning, icing and watering	1.18	.92
Miscellaneous supplies	0.75	0.52
Repairs—labor and material, total train	21.00	5.00
Sub-total	82.50	34.66
Depreciation at 10%		7.15
Interest at 6%		4.30
		46.11

(The fuel costs are based upon coal at $4.00 per ton, gasoline at 12 cents per gallon)

The direct operating expenses of rail-motor car are distinctly less than those of branch line steam train service. However, "this does not constitute the entire saving, for by the use of automotive equipment, it has frequently been found possible to avoid the expenses due to the maintenance of coaling and water stations, turn tables, ash pits, etc., and, in many instances, it has permitted the rearrangement of runs and the concentration of facilities in relatively few modern engine houses, or

34. Gillilan, P. M., "Gas-Electric Motor Cars as Applied to Steam Railroads.", Railway Age, June 2, 1928, p. 1973.

limiting their use to mere shelters for gasoline equipment. In some other cases, due to the double-end operation of electric cars, the turning of locomotives, and the numerous incidental switching operations have been eliminated permitting economies in forces and shorter terminal layovers. The actual value of these somewhat intangible savings are not easily obtained, but they are not inconsiderable....."[35]

The majority opinion of the railroads has been expressed to the effect that the operation of rail-motor cars has not recaptured lost passenger traffic. Their principal utility lies in the material reduction of operating expenses, where rail service is necessary and can be furnished by rail motor cars.[36]

Station expense is also a fruitful source to exercise economy. For stations that must be maintained, there is a possible reduction in forces. With improvement in communication facilities in country districts, it is no longer necessary to maintain agencies every three or four miles. Some roads have adopted travelling agencies, offices being kept open for only part of the day.[37]

Since the Interstate Commerce Commission has taken over the jurisdiction over the supply of freight service in interstate operations, there is the possibility of reducing over-supplied freight service in states where the local commissions have required service beyond the needs of the communities served. Semi-weekly or tri-weekly service could be substituted for daily service.[38]

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35. American Railway Association, Super. cit., 1927 Proceedings, pp. 271-272.

36. Result of inquiry through the Motor Transport Section of the American Railway Association, in Bulletin of American Railway Engineering Association, vol. 30, Jan., 1929, p. 774.

37. Bulletin of American Railway Engineering Association, vol. 28 June, 1927, p. 544.

38. Ibid.

3. Refinements of service—Refinements of rail service include electrification, improvements in equipments, changing and speeding up schedules, and advertising.

Rail passenger service is greatly improved by electrification in the elimination of smoke and cinders which have caused discomfort to travelers. The speed and frequency of service which had been increased by electrification also add appeal to patrons.

The effect of electrification on passenger traffic development is not so clear in the line-haul service as it is in the suburban service. In contrast to the general decline of passenger traffic on the New Haven Railroad, its traffic in and out of the Grand Central Station in New York City increased from a little over 10 million passengers in 1914 to over 17 million in 1927. The number for 1930 was 16,878,481 passengers.[39] The case of the Illinois Central was even more illustrative. Its suburban traffic has steadily increased since 1920 but after 1926 there was witnessed a sharp rise when this road began electric operation. The increase from 1920 to 1926 was 35 per cent, while that from 1926 to 1929 was 50 per cent.[40]

Several railroads are using more comfortable coaches in their passenger service an attempt to regain lost passenger traffic. The Missouri-Kansas, for example, has inaugurated new Pullman lounge cars with several novel features. The Baltimore and Ohio has built an improved coach with better ventilation and with a cooling system. Another distinct feature of this equipment is the new seating device which has greatly increased the comfort of riding.[41]

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39. Only 15 per cent of the total traffic of the Grand Central Station was carried by through or long-distance trains.

40. Wang, Y. Y., "Economic Problems and Results of Electrification of Steam Railroads in the U. S.," Philadelphia, 1930, p. 46.

41. American Association of Passenger Traffic Officers, 1927 Proceedings, p. 46.

Though contrary to the general trend toward reduction in railway passenger service, a few large railways have supplemented the existing service with additional trains.[42]

To speed up schedules, most of the railroads have eliminated unimportant local stops. In some cases, substitution of motor service on the highway was necessary; in others, no substitute service was required.

In freight service, rail carriers have found it necessary to change their freight schedules especially to meet over-night truck service. One carrier had changed the schedule of a local freight train, which left the origin point at seven o'clock in the morning to arrive at jobbing points at five or six o'clock in the afternoon, to leave the origin points in the evening to arrive at the same jobbing points in the morning. This change in schedules not only had the effect of stopping the loss of merchandise freight by this railroad to the highway but also resulted in showing an increase in this class of traffic.[43]

Efforts to Meet Competition on Highways with Coordinated Services—Efforts of railways to meet highway competition with coordiation will be discussed in chapters on coordination.

Remedial Changes Proposed—In order to seek fair competition between highway and rail transportation and to facilitate coordination between these two services, railroads have proposed certain changes in the administration of the Interstate Commerce Act by the Interstate Commerce Commission, repeal for section 4 of the Act, new regulatory legislation, and finally the elmination of subsidies to highway transportation.

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42. "Meeting the Competition of Busses and Trucks.", Railway Age, vol. 79, December 12, 1925, p. 1077.

43. Duncan, C. S., "Problems of Rail-Highway Transportation.", p. 114.

1. Changes in the administration of the Interstate Commerce Act—It is the opinion of the railroad traffic officers that the Commission should give more liberal interpretation to certain provisions of the Interstate Commerce Act, particularly with respect to Sections 2, 3, 4, and 6 of the Act. Due consideration should be given to competition created by the new forms of transportation in the Commission's finding of discrimination and prejudice. On reasonable showing of the railroads' need for assistance, the Commission is to modify various rules, precedents and even principles which it has evolved to the extent that may be justified in the exercise of that fostering guardianship for the railroad systems.[44]

With respect to section 2 of the Interstate Commerce Act which makes unjust discrimination unlawful and prohibits common carriers subject to the act from charging any person greater or less compensation for any service rendered in the transportation of property than it charges other persons for doing a like or contemporaneous service under substantially similar circumstances and conditions,[45] the Eastern railroads feel that the Commission may reasonably recognize that motor competition available to one person for the transportation of traffic competitive with the railroad may properly be accepted as ground for the issuance of a competitive special rate, and that if the motor competition does not compel issuance of a like rate for a like and contemporaneous service in the transportation of a like kind of traffic, the Commission should recognize that there is such dissimilarity of circumstances and conditions that no violation of section 2 is involved.

In connection with Section 3 of the Interstate Commerce Act prohibiting local discrimination, the rail carriers believe that their rates made to compete with motor trucks

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44. Collyer, R. N., "Statement for Railway Traffic Executives."

45. The Interstate Commerce Act, Section 2.

are likely to be sporadic and not related to the general rate structure. Their competitive efforts will involve the publication of rates on certain commodities, particularly susceptible to motor competition, without regard to rates in other sections which are not influenced by motor competition. Motor competition at certain points may compel the railroads to make competitive rates between these points, but the situation elsewhere may not justify their publication. If the railroads are entitled to meet this competition, then the Commission should consider these matters in complaints alleging undue prejudice under section 3 of the Act.

Section 4 prohibits any common carrier subject to the Act from charging any greater compensation in the aggregate for the transportation of property for a shorter than for a longer distance over the same line in the same direction, the shorter being included within the longer distance, provided relief has been granted by the Commission.[46] The Traffic Executives of Eastern railroads believe that the appearance of motor trucks, operating under entirely different conditions and with unrestrained freedom to change rates, brings with it the necessity for a different view in the exercise of the Commision's powers under section 4. They claim that if they are forced by unregulated motor-carrier competition to adjust their rates to meet competitive situations they should not be required to apply rates made under stress of this character of competition upon the theory on which section 4 is based.

Section 6 of the Act provides for the publishing, filing, and posting of rate schedules by carriers subject to the Act. The Commission has consistently demanded an improvement in the manner and method of publishing tariff rates, rules, and regulation in order to develop an orderly

46. Interstate Commerce Act, Section 4.

railroad rate structure. With the introduction of a competitive means of transportation not subject to the Commission's jurisdiction nor to any interstate tariff rules and regulations, a new situation has developed which would justify the Commission's modification of its regulations or making exceptions. The rail carriers suggest that tariff items published to meet an unstable competition where and as it may be found may be properly provided with expiration dates so as to indicate the non-permanence of the rates published and that objections to such expiration dates should not run to rates published to meet motor competition. If railroads are compelled to meet motor truck and water rates in combination, they should be permitted to publish competitive all-rail rates that may be suspended at the close of navigation season and be resumed with the opening of navigation.

The rail carriers also sought relief from Rule 9-E of the Commission's Tariff Circular 20, governing the volume of supplemental matter. Relief from this rule will avoid the reissue of volumous supplements or the reissue of the original commodity tariffs when motor-competitive rates are to be published. They further contend that permission should be granted, on petition, to publish motor-competitive rates on less than statutory notice.

The rail carriers have made a radical suggestion for separate filing of motor-competitive railroad rates in tariffs issued solely for that purpose in areas where that form of competition is peculiarly burdonsome to the railroads. so that normal tariffs would not be disturbed.

2. New legislation—It is contended by the railroads that there was urgent need for new legislation to stabilize highway operation.[47] To insure fair competition, the same principles embodied in the Interstate Commerce Act

47. Duncan, C. S., "Problems of Rail-Highway Transportation," p. 121.

which provides regulation for railroads, should be applied to their competitors on the highways. With a view of affecting coordination between rail and highway service, definite statutory authority should be given to the railroads to enter the field of highway transportation.

3. Elimination of subsidies to highway operation—Railroads have most bitterly complained of the government subsidy to highway transportation. It is pointed out that the railroads, in addition to taxes paid to the government a portion of which was used for the construction of highways to accomodate their competitors, has had to build and maintain their own private roadways. Moreover, the amount of taxes paid by commercial vehicles on the highway through the medium of special taxes were wholly inadequate to meet the public cost of the improved roads they are using. While the rail carriers have not suggested any definite legislative measure, they feel, nevertheless, that this is one phase of the competitive situation that should be remedied.[48]

Efforts to Reduce Highway Competition—The railroads have made an effort to oppose the granting of permits to independent operators before public utility commissions in order to reduce highway competition. Such efforts are confined to states which control highway traffic by means of certificates of public convenience and necessity. The general attitude of the railways is well expressed by the vice-president of a northwestern road:[49]

> We will go before the Commission to oppose every freight truck line which attempts to parallel our tracks. This form of service is a substitution for our railroad service. Truck lines do not create new business but take business from the railroads. The law recognizes the railroad as a necessity. Therefore we believe that we should have all of the business. If we do not,

48. Ibid., p. 126.

49. "Meeting the Competition of Buses and Trucks," Railway Age, vol. 79, December 12, 1925, pp. 1077-1078.

the aggregate of inroads from truck lines will mean higher freight rates sooner or later. The railroads carry all the freight and must have all of it if there is not to be an increase in operating costs and rates.

While competition has been prevented in a few cases, the efforts of the rail carriers in this respect are not very successful. Where there is a public demand and economic justification for the service, any attempt to resist the growth of a new form of transportation has always failed. Therefore, it is futile for the railroads to carry this plan of opposition too far.

CHAPTER V

RAIL-MOTOR COORDINATION

The earlier attitude of railroads toward highway competition was usually antagonistic, and their efforts were chiefly directed toward restricting the growth of this new form of transportation and protesting against the encroachment of railroads' prior rights. This attitude has now undergone a complete change. Railroad managers, through bitter experience, have gradually realized their futile attempts to meet motor competition in the fields where railroad operation is less efficient than the motor vehicles. They, therefore, are counselling coordination instead of conflict. Their willingness for coordination is manifested by the inauguration of railroad-controlled truck service at terminals for store-door collection and delivery, the use of trucks as substitutes for way-freight trains on light-traffic local lines ,and the use of motor coaches supplementary to passenger trains in well settled territories or as substitutes for passenger trains on branch lines.

Definition and Meaning of Coordination—Coordination of transportation facilities means the utilization of various transportation agencies in performing the same transportation service without duplication of facilities or services. "It recognizes that there are distinct fields of service in which each agency has definite advantages, and that where those advantages are clearly demonstrated the field should become practically an exclusive one. It pictures a condition in which each agency shall do the work for which it is inherently best adapted, and in which all shall be so harmonized and brought into team work with

each other, throughout the country, that the resulting service should be the best and most useful which it is possible to produce by means of the physical facilities so far devised."[1]

Coordination of railroad and motor truck and motor bus service inplies the adoption of one agency to another so as to produce a harmonious operation that will result beneficially to the public and the transportation agencies themselves. Each of these agencies is used in such a way so as to give the public maximum service at a minimum cost.[2]

Much misunderstanding has arisen regarding the relation of the coordinated agencies. Professor Wilson has clarified this point very well. "The coordination of transportation does not necessarily mean that the motor carriers will be relegated to a position of minor importance in the transportation system, or that all motor truck and bus lines will be controlled by railroads or by other carriers. Coordination, which implies only the union of various classes of carriers to improve the efficiency of transportation, may be achieved through independent ownership and operation of motor vehicles as well as by the ownership and operation of motors by railroad and steamship lines or by subsidiaries of the rail and steamship companies. Many who fear that railroad or steamship ownership of motor vehicles will impair the motor's usefulness and check its development, have expressed the belief that the rail and steamship carriers seek through coordination to limit motor services to those which were performed by the horse or wagon before the advent of the automobile, and

1. Chamber of Commerce of the United States, "The Future of Railroad Transportation", pp. 24-25., in Proceedings of the Eighteenth Annual Meeting.

2. "Coordination of Railroad and Motor Transportation", I.C.C. Docket No. 23,400, Examiner Report, p. 12.

that the railroads and steamship lines seek to recapture and continue to control all the services they performed before the motor vehicle entered into competition with them.

"The coordination of rail and motor transportation may be brought about without the railroads having any direct or indirect financial interest in the motor carriers. Joint through rates and services by rail and motor routes will do much to establish a satisfactory system of coordination. This can be brought about through the joint action of the railway and motor carriers, under common regulatory control, without any community of financial interest between the carriers, just as through rates and routes are now made by joint rail, rail-and-water and all water carriers.[3]

Objectives of Coordinated Transportation—Objectives of coordination are many: (1) to eliminate unnecessary duplication of facilities and wasteful competition among the instrumentalities of transportation; (2) to reduce the cost of transportation through the more efficient utilization of transportation facilities; (3) to increase through transportation; (4) to improve the service to the shipping public; and (5) finally, to conserve investment in transportation facilities.

Means by Which Coordination May be Effected—The question arises as to what should be the best form of organization for highway operation by the railroads and what should be the relationship, financial and otherwise, between the railroad and the highway operation. No definite rule could be formulated but each form of organization should be made to adapt itself to the situation.

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3. Wilson, G. Lloyd, "Coordinated Motor-Rail-Steamship Transportation.", pp. 2-3.

Practices of conducting highway service differ with different railroads. Coordination may be achieved through mutual agreement and consent or by contract. In a few cases, the railroad operates highway service as an integral part of rail operation and owns the motor facilities. Some instances may be found where there is a common financial interest as to highway operation. But the usual relationship which now exists is the carrying on of highway operations through organizations wholly owned and wholly controlled by the railroad, i.e., subsidiaries.

1. Direct operation—Instances of direct rail operation of highway service are few, and not extensive. The Monongahela Railway and the Chicago, Milwaukee, St. Paul & Pacific operate motor service directly and the motor-vehicle investment and operations are merged with their general organizations.[4]

2. Contract service—Contract service is performed by independent motor carriers who are under contract to furnish the adequate personnel and suitable equipment, while the railroad agrees to compensate the contracting company on a certain basis fixed in the agreement. The payment may be made either on a rental or hour basis regardless of the distance travelled and the weight of shipment handled, on tonnage basis, or on mileage basis.[5]

The first advantage of the contract system is that it avoids the burden of making a heavy investment in the motor equipment, so that if the highway service is discontinued the railroad would not suffer any capital loss. Furthermore, direct rail highway operation enters into competition with the existing truck carriers, which might lead to a rate war, with a possible loss to both.[6] The con-

4. "Coordination of Railroad and Motor Transportation", I.C.C. Docket No. 23,400, Examiner Report, p. 13.

5. I.C.C. Docket No. 23,400, vol. 19.

6. 1928 Proceedings of American Railway Association, Motor Section, Report of G. C. Woodruff, p. 140.

tract system, on the hand, promotes a certain degree of cooperation between the motor truckman and the railroad; for, in order to increase their revenue, the truckmen will naturally make their best efforts to solicitate possible tonnage for the railroad. Another strong reason in favor of the contract system is the labor problem. Railroad employees are governed by the Hours of Service Act and enjoy more favorable working conditions and wages due to their strong labor organizations than the employees in highway service.[7] If the highway service is operated under common railroad management, then the drivers and helpers must be treated on the same basis as the railroad employees. Such being the case, it would be impossible for the railroad to compete with the independent motor operators.

Coordination through this method is illustrated by the Pennsylvania Railroad which has contracts with eight bus lines, providing line-haul transportation of passengers and baggage in connection with its rail operations. It also has contracts with four trucking companies to supply truck service in lieu of station-to-station rail service. There is such variance in the terms of these contracts that no two provide the same basis of compensation.[8]

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7. The difference in wages paid to railroad employees and to bus and truck operators is pointed out during the hearings before the I.C.C. in Docket 23,400. One witness testified that bus operators were paid no more than railroad porters, or at the rate of $4.00 per day. Specific figures were furnished by the request of the Examiner for wages to rail employes and to bus drivers on the comparable service by one railroad engaged in both enterprises. These figures showed an average compensation per hour for engineers of $1.88, for firemen $1.43, for conductors $1.51, for Baggagemen $1.15 and for brakemen $1.08, while the amount paid drivers per hour during the same period was 72 cents, see Duncan, C. S., "Problems of Rail-Highway Transportation", pp. 94-95.

8. "Coordination of Railroad and Motor Transportation", I.C.C. Docket No. 23,400, Examiner Report, p. 14.

3. Motor-vehicle operations of rail carriers through subsidiaries—The method most generally adopted for rail operation of highway services is the organization of subsidiary corporations whose stock is entirely owned by the railroad, except the necessary qualifying shares of directors. The St. Louis Southwestern Railway owns all the stock of the Southwestern Transportation Company which operates motor buses and motor trucks in connection with the parent company. The Union Pacific and the Chicago & North Western Railway own 77.95 and 22.05 per cent respectively on the capital stock of $1,902,460 issued by the Interstate Transit Lines. It conducts motor-bus operations in the territory served by the two railroads.[9]

The intercorporte relationship between the parent company and the subsidiary company is arranged through the interlocking official system. For example, the officers and directors of the Wilson Transportation Company are all officers of the Omaha Railroad, the latter being a subsidiary company. All Omaha Railroad Officers, who are also officers of the Wilson Transportation Company, serve the latter company without compensation.[10]

Financial relationships are generally provided in the agreement between the parent road and the subsidiary company.

For the use of stations and facilities of the railroad in the performance of the coordinated service, the subsidiary

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9. I.C.C. Docket No. 23,400, Examiner Report, p. 13.

Other railroads which conduct motor-vehicle operations through subsidiaries are: Boston & Maine, Maine Central, Baltimore & Ohio, Central of Georgia, Central Railroad of New Jersey, New York, New Haven & Hartford, Reading Company, Southern Pacific, Spokane, Portland & Seattle, Chicago & Alton, Chicago, Burlington & Quincy, Texas & Pacific and Missouri Pacific.

10. I.C.C. Docket No. 23,400, vol. 12, pp. 2090-3091, Testimony of Carl R. Gray, Vice-president and general manager of the Chicago, St. Paul, Minneapolis and Omaha Railway Company.

company agrees to pay to the rail company such fair and reasonable rental and such fair proportion of station expense as may be mutally agreed between the parties from time to time. In case any new equipment has to be purchased it usually agrees to pay a reasonable rental.

The agreement also provides for the payment to the rail company for the handling of the business of the subsidiary company. Needless to say, the bases for such compensation are not uniform.

The compensation for the railroad service rendered may depend upon the gross revenue of the subsidiary company. The agreement between the Texas and Pacific Railway Company and the Texas and Pacific Motor Transport Company provides that the rail company agrees to render the service contemplated and handle all of the business of the transportation company for seventy-two per cent of the gross transportation revenue of the transportation company. In addition, the transport company shall pay the rail company ninety per cent of the net profits accruing from the operation under this contract to be determined.[11]

Another basis of compensation for the rail service rendered in connection with the coordinated service is provided in the agreement between the Oregon Electric Railway Company and the Northwest Freight Transport Company. From the gross income of the transport company shall be deducted the total cost of operation, including ten per cent for contingencies and other unassignable expenses. The balance remaining shall be designated as "Income for Division" and from it shall first be set aside for the transport company an amount, equaling but not exceeding eight per cent of the investment in property, equipment and other capital of the transport company.

11. Ibid., Vol. 3, Exhibit 34.

The balance shall be turned over to the rail company in compensation for its rail service.[12]

A common agreement is for the subsidiary company to pay to the railroad company a fixed percentage of class rate as the compensation for service performed in the coordinated service, regardless of the actual classes of shipments. This percentage may be reached from the average rates on all classes of freight based on the past experience.

On the other hand, the railroad will pay its subsidiary a certain amount as compensation for the truck service that has replaced way-freight trains. The common practice is for the transportation company to charge the railroad company the operating expenses of the trip which is apportioned according to the volume of traffic handled for the railroad as compared with the total tonnage in the truck, plus a certain percentage as profit.

Practical Difficulties in the Path of Coordination—Although the desirability and economies of a coordinated transportation service are readily recognized, obstacles are in the way which must be cleared before a successful scheme of coordination can be inaugurated. The first obstacle to be overcome is the inertia on the part of railroad managements which, as a rule, are conservative. Many of them are not willing to risk investment in a field of operation still experimental. For one thing, there is to be considered the large capital sunk in the railroad enterprise which might be totally lost if railroad service is to be replaced by highway service. As a precautious measure, the railroads for the most part have preferred to have the outside concerns perform the cartage service in the terminals under contract rather than to own and operate their own motor vehicles, thus they could avoid investment in motor equipment and dislodge additional responsibility of managing the service themselves.

12. Ibid., vol. 14, Exhibit no. 289.

Another obstacle to coordination is the apprehension on the part of the motor carriers that motor transportation would be reluced to a subordinate position through coordination, and that motor trucks would be used only in the services that the horse and wagon performed before the advent of the motor vehicle.[13]

Shippers and consignees who have advantages in location or facilities are unwilling to have them eliminated by the plan of coordinated terminal service and are, therefore, usually antagonistic to coordination. Other shippers have acquired the habit of using their own trucks or of hiring independent truckers to haul their goods between their warehouses and the freight stations. They are also slow to change their business routine.

The comprehensive regulation to which the railroads have been subjected in contrast with the relative freedom from regulation of the highway carriers has created one of the most difficult problems in coordination. Many railroads have testified to the effect that proper coordination between these two services could not take place without a corresponding regulation for each, and that without regulatory provisions or with regulations applying only to common carrier highway operations, the proper responsibility for rendering service and the necessary stability in rates are impossible.

The Interstate Commerce Act imposes another obstacle in the path of coordination. Carriers subject to this Act are under severe penalty to meet the requirements of provisions with special reference to just and reasonable rates, undue discrimination and undue prejudice as to persons, commodities and places. A certain period of time has to be elapsed before the tariff can be changed.

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13. Wilson, G. L., "Coordinated Motor-Rail-Steamship Transportation", pp. 2-3.

Successful coordination between these two transportation agencies is difficult to affect with such discrepancy existing between them with respect to rates.

Clayton Anti-trust Act and its Relation to Coordination of Rail and Motor Transportation—The first paragraph of section 7 of the Clayton Anti-trust Act provides as follows:

> That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acqusiition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

The Clayton Act also provides that corporations engaged in interstate or foreign commerce may form subsidiary corporations for the actual carrying on of their immediate lawful business or branches or extensions of these business, or for owning and holding all or a part of the stock of such subsidiary corporations when the effect of such arrangements is not to lessen competition substantially.

These provisions of the Clayton Act which refer to the operations and management of common carriers engaged in interstate or foreign commerce apply to common carriers by motor vehicle as well as other common carriers.

One of the objects in requiring a certificate of convenience and necessity is to prevent the highways from being unduly congested and overcrowded. Should one or more motor-vehicle operations be certificated to operate over a particular route, it might not be considered desirable to grant another certificate of public convenience and necessity. The rail carrier, which is also subject to the requirement of a certificate before commencing motor-vehicle operation, must under such circumstances remain out of the field of coordinated motor-rail service or purchase

an existing motor-vehicle operation for which a certificate has been granted. This it is not permitted to do under the provisions of the Clayton Antitrust Act should the corporation, the stock of which is to be purchased, be considered to be in competition with the rail carriers desiring to make the purchase.

Motor-rail coordination may be achieved without the necessity on the part of the rail carrier to operate motor vehicles, either directly or indirectly, by means of contract or agreement with independent motor operators, but it will fall far short of what can be accomplished if the operations are under one management. One of the most important objectives of coordination is to eliminate unnecessary duplication of facilities and wasteful competition among the instrumentalities of transportation. It is obviously in the public interest to pursue this policy, if the use of the existing railroad organization, personnel and facilities in connection with the motor-rail operations will promote efficiency of service and would obviate duplications and waste.

Section 5 of the Interstate Commerce Act as amended by the Transportation Act of 1920 encourages consolidation subject to the supervision of the Interstate Commerce Commission. If after a hearing the Commission finds that it is in the public interest, the law provides that such consolidation, with the approval and authority of the Commission, shall be relieved from the operation of the antitrust laws and of all other restrictions or prohibitions by law, state or federal. This suggests the line of action that should be followed in the modification of the Clayton Act to make possible effective coordination of rail and motor transportation.

Legality of Substitution of Motor Service for Railroad Line-Haul Service—There is an element of uncertainty regarding to the legal liability which may arise where a

rail carrier transports passengers or shipments by motor vehicle with nothing in its tariff to indicate this service. Under the existing legislation, there is still some doubt whether or not a railroad can legally substitute motor service for a portion of the rail line-haul for the transportation of property and persons when the tariff entitles the shipper or passenger to rail transportation for the entire distance. There may be circumstances under which a shipper may prefer to have his shipment moved over the whole idstance by rail or a passenger might not desire to travel by bus.

CHAPTER VI

COORDINATED RAIL-MOTOR PASSENGER SERVICE

The Extent of Coordinated Rail - Motor Passenger Service—According to answers to the questionaire received by the Interstate Commerce Commission,[1] 33 companies of the Class I railways[2] operated and owned or controlled motor buses, directy or through subsidiaries, on June 30, 1930. They were operating on that date 3,105 busses over 65,801 miles of route, of which 38,168 miles were intrastate and 27,633 were interstate. During the six month period, January 1 to June 30, 1930, they carried a total number of 35,930,847 passengers, of which 5,090,561 were intrastate passengers carried by 10 lines, the others not making a separation between interstate and intrastate operations. During the same period, the total passenger revenue derived from these buses was $16,182,029, of which $3,371,391 was revenue on interstate passengers carried by the 10 lines making separation. These figures do not include data with respect to motor-vehicle companies which are neither subsidiary to nor affiliated with the railroads, but which have contractual agreements with the railroads for transpoprptation of passengers or property beyond their lines, or in substitution for a rail haul. The Commission's summary does not include the operating expenses and no information is disclosed with respect to the extent to which these operations were profitable.

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1. I.C.C. Docket No. 23,400, Examiner Report, Appendix B.

2. Class I companies are those having annual operating revenues above $1,000,000.

Of these 33 companies, 8 operated one hundred or more buses on June 30, 1930. They were as follows:

Railroad Companies	Number of buses
Southern Pacific	648
New York, New Haven and Hartford R.R.	638
Pennsylvania R. R. System	430
Great Northern	218
Missouri Pacific R. R.	192
Chicago and North Western Ry.	188
Union Pacific R. R.	188
Texas and New Orleans R. R.	147

Although the use of the motor bus by railroads was slow in starting in the United States, it is developing at a much more rapid rate at the present time on account of the fact that passenger traffic has been falling off very rapidly, particularly on the short-haul trains.

TABLE XXVI—*Motor Bus Operation of Class I Railroads*

	1927	1928	1929	Six months ended with June, 1930
Number of buses ...	745.00	1,028.00	2,265.00	2,887.00
Number of bus-miles	23,725,222.00	37,491,404.00	95,371,709.00	58,707,886.00
Number of route miles:				
Intrastate	2,856.00	4,552.71	23,583.22	33,187.25
Interstate	1,051.05	2,751.15	12,379.55	23,040.05
Number of passengers	34,523,684.00	46,909,960.00	62,863,524.00	34,113,361.00
Passenger revenue ...	6,866,475.00	11,017,321.00	26,799,883.00	14,614,011.00

3. Compiled from I.C.C.'s "Statistical Summary of Investment and Operating Figures Reported by Class I Railways in Questionaire." Note: The figures of the Great Northern were not available in this tables.

The steam railroads of Class II and III[4] operated 117 motor buses as of June 30, 1930, over 1142 miles of intrastate routes and 548 miles of interstate routes. These buses handled 531,603 passengers during the six month period ended June 30, 1930, and earned a passenger revenue of $281,319.[5]

The extent to which each individual railroad has engaged in motor coach operation is indicated by a comparison of its railway mileage and highway mileage. The Boston and Maine, with 2090 miles of railway lines, has 936 miles of motor coach routes. The Missouri Pacific, with 7,451 miles of railway lines, operates 3,839 miles of motor coach routes. The New York, New Haven & Hartford, with 2,122 miles of rail lines, operated in 1930 2,126 miles of interstate routes and 1,105 miles of intrastate routes. The Reading Company which has 1,575 miles of railway lines is operating 779 miles of motor coach routes. The St. Louis Southwestern, with 1,913 miles of railway lines, operated in 1930 1,195 miles of interstate motor coach routes and 995 miles of intrastate routes.[6]

Types of Coordinated Rail-Motor Service—Motor bus transportation may be coordinated with rail service in the following operations: (1) In replacement of local train service in whole or in part; (2) In additional auxiliary service to local train service; (3) In providing connections for through passenger journey; (4) In feeder service; (5) In tour service; (6) In the extensions of rail service; (7) In long distance services paralleling rail lines; (8) In

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4. Class II companies are those having annual operating revenues from $100,000 to $1,000,000 and Class III companies are those having annual operating revenues below $100,000.

5. Bureau of Railway Economics, "Motor Bus Operation by Steam Railways.", March 25, 1931.

6. "Cut Costs with Motor Coaches", Railway Age, vol. 91, July 25, 1931, pp. 121-22.

handling employees in replacement of workmen's trains; and (9) In emergency uses.

Buses are being used to eliminate passenger trains on branch lines and light traffic trains on main lines. When buses are used over highways paralleling the main rail lines, it has been possible to eliminate great many local train stops and speed up train service appreciably.

The New England Transportation Company, a subsidiary of the New York, New Haven and Hartford Railroad, established its first motor service as a substitute for local rail passenger trains in western Connecticut in August, 1925. Whenever economies that would result from the substitution could be demonstrated, the installation of bus lines was made. Now about half of the bus routes have replaced local passenger train service. The subsidiary company has taken over all services formerly performed by the local passenger trains that have been replaced by buses, including the carriage of baggage, mail, express and milk. The same level of fares has been maintained.[7] Through this substitution, it has eliminated 836,366 passenger train miles a year, at an annual saving of $1,201,523.[8]

Another outstanding coordinated motor-rail passenger service is that of the Boston and Maine Railroad Company. Consisting of 1,273 miles of main lines and 774 miles of branch lines and serving in relatively compact territory, it was naturally among the first railways to feel the effect of highway competition. Many of its branch lines had been operated at a loss and traffic on certain main line divisions had fallen to a point where continued train operation would have brought poor return upon property investment.

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7. Annual Report, New York, New Haven and Hartford Railroad Company.

8. "Cut Costs with Motor Coaches", Railway Age, vol 91, July 25, 1931, p. 121.

The substitution of motor service was first effected in the fall of 1924 by the Boston and Maine Transportation Company for its parent railway.[9] On several branch lines, all rail passenger service was discontinued and highway service provided. Partial substitution of rail service has been made on some of the other branch lines. Five bus routes have been established to replace, in part, the main line service.[10] Two of these routes were for the sole purpose of reducing the running time of its main line passenger trains between important stations. Many stops had been eliminated which had ceased to be used by passengers or were used only occasionally and buses were provided to carry passengers from the stations at which the main line express trains stopped to the smaller intervening stations.

In addition to the bus routes operated by its subsidiary, the North Western has made contracts with several independent bus operators for the transportation of passengers, baggage, mail and express in replacement of passenger trains. The contractor furnishes and operates motor vehicles between the railway stations with the railway issuing the tickets which the contractor collects and turns in to the railway. For this service, the railway pays the contractor a fixed sum per month.[11]

Other large railroad users of motor buses in replacement of unprofitable passenger train service are the Pennsylvania Railroad and the Union Pacific. The

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9. Railway age, "Million Dollars Saved by Motor Coach Substitution," vol. 91 July 25, 1931, p. 145.

10. Littlefield, R. J., Manager, Motor Coach Service, Boston and Maine Transportation Company, "What the B. & M. Transportation Company Did in 1926" Railway Age, Vol. 82, April 23, 1927, pp. 1287-89.

11 "North Western Busses Supplement Train Service", Railway Age, Vol. 91, December 26, 1931, pp. 988-92.

12. Deasy, J. F., "The Coordination of Rail and Highway Transportation", March 4, 1931, p. 6.

Pennsylvania began substitution of bus service for passenger train service in 1924 and has steadily expanded its bus operations. Up to January 1, 1931, it had eliminated practically 798,561 unprofitable steam train miles per annum with an estimated economy of $478,240.[12] The Union Pacific has been able to eliminate 2,276,956 train miles per year. The Reading has replaced a number of passenger trains, eliminating 391,000 passenger train miles annually.[13]

With few exceptions, these motor operations are not profitable in themselves but are generally regarded as advantageous when consideration is given to the costs which would otherwise be incurred in meeting the public's requirements for transportation service. The saving from such operations is expressed as the difference between direct out-of-pocket train expense and the cost of motor operations. The Union Pacific, for example, has experienced a net loss of $43,500 from the bus operations in the Oregon territory in 1928, but this was more than offset by the saving of $84,120 from the elimination of unprofitable passenger trains.[14] The subsidiary of the Boston and Maine has also shown an operating loss of approximately $43,000 in 1930, but the economies which the railway has been able to effect by reason of its motor coach operations amounted to $916,657 on December 31, 1930, at the rate of approximately $200,000 a year.[15]

The cost of bus operation ranges from about 15 to 24 cents per mile for buses up to 25-passenger capacity and from 27 to 32.5 cents for buses up to 33-passenger capacity,

13. "Cut Cost with Motor Coaches", Railway Age, vol. 91, July 25, 1931, p. 121.

14. "Union Pacific Bus Operations Widespread", Railway Age, Vol. 91, August 22, 1931, p. 297.

15. "Million Dollars Saved by Motor Coach Substitution", Railway Age, vol. 91, July 25, 1931, pp. 144-48.

averaging in the neighborhood of one cent passenger-mile, assuming full loading. The out-of-pocket cost of passenger-train operation is about 70 cents a mile.[16]

The capacity of the average local passenger train exceeds 100 passengers per train. If this capacity is fully utilized, the out-of-pocket expenses will be about one cent per passenger-mile. It is quite apparent then that if there is enough traffic for the branch-line trains, the railroads could, on the basis of out-of-pocket expenses, operate steam passenger service as cheaply as motor buses. The passenger traffic for branch lines, however, is exceedingly light. The average number of passengers per passenger train-mile for all Class I railroads in the United States reached the maximum of 82 in 1919. Since then it decreased constantly until the lowest figure of 49 was reached in 1930.[17] Considering the very heavy loading of through trains and commuter trains, Professor Slater has made the assumption that the average number of passengers on many local and branch-line trains is less then 30. Therefore, in many cases one large motor coach will handle all the passengers, luggage, mail and express of a lightly patronized train. The margin between the cost of operating highway service and the cost of operation of a local passenger train is considerable.

In some instances, a profit can be earned even on the operation of motor coaches which are substituted for passenger train although profit is not the primary motive that has prompted such substitution. The operations of the Pennsylvania Greyhound Lines, in which the Pennsylvania Railroad has a 50 per cent interest, for the year 1930, resulted in gross revenues of $6,831,617.93, with the gross expenses of $6,014,997.48, leaving net for dividends,

16. 182 I. C. C. 362.

17. Interstate Commerce Commission, Forty-fifth Annual Report, 1931.

$816,620.45.[18] In the same year, the Illinois Central had a net income of nearly 19 per cent on its investment in its operation of a train-replacement motor coach.[19]

Aside from the replacement service, motor coaches are operated by railroads to supplement train service.

Train service of high frequency, for instance, is being operated by the Reading Railroad on its main lines between Philadelphia, Pa., and Atlantic City, N. J.; between Philadelphia and New York City and Harrisburg, but supplementing this train service are frequent motor coach schedules. The Reading Transportation Company, in conjunction with the Jersey Central Transportation Company, has put into effect 19 round trip motor coach schedules daily between New York and Philadelphia. Bus service is also being operated between Philadelphia and Atlantic City, the frequency being considerably increased during the summer months. Supplementary bus service is operated between New York and Harrisburg.[20]

The highway service of the Boston and Maine supplements the rail service on five routes. On a number of branch lines, motor coaches were utilized at periods of slack traffic, while main line trains were used when the traffic was heavy.

The growth of bus operations supplementary to rail service was aided by the purchase in many cases of bus lines paralleling railroads with a view of stamping out competition from this source and to satisfy a growing public demand for bus transportation.

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19. "Cut Costs with Motor Coaches, "Railway Age, vol. 91, July 25, 1931 p. 122.

20. "How Two Roads Co-ordinate Train and Bus Service", Railway Age, Motor Transport Section, vol. 92, March 26, 1932, pp. 530-32.

Motor coaches have provided very convenient connections for the through passenger journey. This is illustrated by the summer travel from the middle and lower sections of the Mississippi Valley to the hundreds of lake resorts of Minnesota. Six railways have brought passengers from the south to the Twin Cities whence coach lines could radiate to all parts of Minnesota and reach the lakes directly and with frequent service. By providing these connecting coach lines, the railways were able to gain an important passenger movement that otherwise would be lost to private automobiles.[21] In other cases buses are used to connect the ends of several railroad lines, thus to form a through journey. Through tickets are issued for this type of coordinated service.

Motor coaches are operated by the Boston and Maine Transportation Company in feeder service in territories not served directly by the railroad. The Union Pacific is operating bus service from the rail-head at Cedar City, Utah, to the several national parks in Southern Utah and northern Arizona.[22]

Among the railroads that operate buses over scenic routes as sight-seeing services are the Atchison, Topeka & Santa Fe, the Union Pacific, the Southern Pacific and the Boston and Maine.[23] The "Indian Detour" service for tourists has been offered for several years by the Santa Fe. Passengers leave the transcontinental trains for one or more days in order to visit the scenic and historic

21. Budd, Ralph, President, Great Northern, "The Trend in Passenger Travel", Address before the Society of Automotive Engineers in New York, January 12, 1928; also appeared in Railway Age, vol. 84, April 28, 1928, pp. 1025-27.

22. "Union Pacific Bus Operations Widespread", Railway Age, vol. 91, August 22, 1931, p. 298.

23. "All-Expense Tours by Train and Motor Coach", Railway Age, editorial, vol. 85, August 11, 1929, p. 249.

attractions of the region around Santa Fe, N. M. The tour is conducted on an all-expenses basis and variety of trips are offered.[24]

Motor buses for the extension of rail service are operated by the Baltimore & Ohio Railroad which has established off-track motor bus termini at various points in the metropolitan area around New York. During the period of Federal Control of railroads, the Baltimore & Ohio Railroad, through the lease of the Pennsylvania Railroad station in the heart of New York, had built up a considerable volume of through passenger business which it desired to retain after the expiration of the lease. Owing to the lack of a passenger station in New York City, motor coach service was inaugurated in co-operation with the Fifth Avenue Coach Company of New York, connecting its terminal at New Jersey with Manhattan, Brooklyn and Newark. The buses meet the incoming trains at the Jersey City Railroad station and carry the passengers into the centers of New York City without extra charge. The same bus routes enable the passengers to take trains on guaranteed schedules. Buses load and unload passengers at the platform alongside the trains in the train shed; accomodations being available for baggage.[25]

Buses for long distance service paralleling rail lines are operated between Boston and New York by the New York, New Haven and Hartford. In a few instances, buses are used to handle employees to and from working places in replacement of workmen' strains.

The flexibility and adaptability of motor coaches are sometimes found to be a valuable asset to railroads in time of emergency. Should tracks be destroyed by floods and

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24. Motor Transport Section, Railway Age, "Santa Fe Expands 'Detour' Highway Service", vol. 88, May 24, 1930, pp. 1283-84.

25. Wilson, G. Lloyd, "Coordinated Motor-Rail-Steamship Transportation", p. 181.

rail service probably be interrupted for sometime, coaches might provide passenger service by a roundabout way.

During the New England flood in November, 1927, the Boston and Maine gave bus service where the rail service was out of operation.[26] The rail lines were damaged in 101 places, and a total of 946 miles, almost half of the total mileage, was affected. Without the motor coach service to bridge these gaps through traffic would have been impossible. It is true that the highways in New England were in many places washed out, but it was always possible to operate by detour over backroads.

Where conditions made it desirable to concentrate on freight movements during this emergency, bus service was used to replace rail passenger service.

When trains could not be operated to handle the large repair forces necessary on account of so many breaks in the rail lines, motor coaches were assigned to the maintenance-of-way and engineering department for transferring men to and from temporary camps and from washout to washout. Linemen and many miles of wire were handled on these motor coaches.

Methods of Railroad Operation of Motor Coach Service—Three general methods are followed by railroads to operate their motor coach service. The Rutland Railway operates its motor coach service much as if it is a branch of railroad operation. Geo. L. R. French, Vice-President and General Manager of the Rutland, said:[27]

> "Motor coach fares are collected by the motor coach operator. Hence, no tickets are sold for motor coach passage. As our motor coach service is in substitution of train service, all

26. "Motor Coach Valuable Asset in Emergency," Railway Age, Motor Transport Section, vol. 83, December 24, 1927, pp. 1289-91.

27. "Coordinating Railway and Motor Coach Activities", Railway Age, vol. 84, no. 17, April 28, 1928, pp. 1027-28.

railroad tickets are honored for passage on the motor coach. Passengers are permitted to carry hand baggage with them on the coaches. Other baggage, such as trunks, is checked by the railroad agent and transported by train only when passengers are traveling on railroad tickets.

"Matters pertaining to the operation, maintenance, purchasing, accounting, and so forth, of the motor coach subsidiary are taken care of by the respective heads of the departments having similar jurisdiction of railroad affairs. The motor coach subsidiary is only charged with the expenses of the supervising officers in connection with assignments pertaining solely to the subsidiary, such items of expense consisting principally of traveling expenses. No general supervision charge is made.

"For each calendar month, an income statement and general balance sheet, as of the close of the month, is rendered to the executive officers of the motor coach subsidiary. A report giving the analysis of operating costs is also rendered each month."

The N. C. & St. L. Motor Transit Company, a subsidiary of the Nashville, Chattanooga & St. Louis, is also operated as a branch of the railway organization. The railroad agents take care of the tickete and baggage. The subsidiary company has the same personnel as the railway company and the accounting is done by the general accounting office of the railway. No charges of general office expenses are made against the motor transit company as the operation of highway service does not necessitate the addition of the railway company's general forces.[28]

On the other hand, the Northland Transportation Company, a subsidiary of the Great Northern, has almost complete independence in operation.

The Northland Transportation Company does not use the Great Northern Railway Company's depots, nor is there an interchange of tickets. Generally speaking, the Northland Transportation Company is operated as independently as can be

28. Ibid.

from its parent company, although naturally, some matters, both of operation and accounting, are taken up with the railway at various times during the year.[34]

Following the same procedure is the Samoset Company, subsidiary of the Maine Central, which has no joint arrangement for the selling and honoring of tickets, nor for the handling of baggage. It does not render any report to the railway. The only exception is that the accounting department of the railway does the accounting work for the motor coach company, a certain portion of salaries being charged against it as a result.[29]

The practices of the Southern Pacific Motor Transport Company represent a middle ground between the two extremes just described. All forms of Southern Pacific tickets via Southern Pacific lines are honored on motor coaches of the subsidiary company between its stations and scheduled stops. No baggage is checked on any such railroad ticket, but the passenger may check his baggage at the railroad station in the regular way. The subsidiary functions as a separate corporation with its own officers and employees, but renders to the Southern Pacific a monthly statement of revenues and expenses.[30]

29. Ibid.
30. Ibid.

CHAPTER VII

RAIL-MOTOR COORDINATION IN FREIGHT SERVICE

The Extent of Railroad Motor-Truck Operation—Seventeen Class I steam railroads owned, as of June 30, 1930, 551 motor trucks which were operated over 8,863 miles of intrastate routes and 1,546 miles of interstate routes during the first six months of 1930. 115 trailers were also used in railroad operated motor-truck freight service. The traffic reported by 13 of these companies totaled 413,259 tons, on which revenue of $1,385,369 was earned. $88,311 of this freight revenue was from interstate traffic.[1]

Ten Class II steam railroads reported a property investment of $220,795 in motor-vehicle equipment as of June 30, 1930. During the six-month period preceeding, they operated 18 trucks with an aggregate tonnage amounting to 2,943 tons, and with a total revenue of $46,930.[2]

On June 30, 1930, Class III steam railroads operated 20 trucks. The result of operation during the first half of 1930 showed a tonnage of 609 tons of freight transported and a revenue of $35,806.[3]

The recentness of the railroads to enter into motor-truck operation and the rapidity of this development are shown by the following table.

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1. Interstate Commerce Commission, Docket No. 23,400, "Statistical Summary of Investment and Operating Figures Reported by Class I Railways in Questionaire," November, 1930.
2. I.C.C. Docket No. 23,400, Report of Examiner Flynn, sheet 15.
3. Ibid.

TABLE XXVII.—*Motor Truck Operating Data for 1927, 1928, 1929 and 6 months Ended with June, 1930, Class I Roads.*[4]

Region and District	Nnmber of Trucks and Trailers							
	1927		1928		1929		Six Moths ended with June, 1930	
	Trucks	Trail-ers	Trucks	Trail-ers	Trucks	Trail-ers	Trucks	Trail-ers
New England Region ...	33	0	84	22	159	33	243	44
Great Lake Region	0	0	1	0	3	0	3	0
Central Eastern Region ...	99	34	124	34	154	44	187	41
Total, Eastern District	132	34	209	5	316	77	433	85
Poahontas Region	0	0	0	0	0	0	0	0
South Region	0	0	0	0	3	0	4	0
Total, Southern District	0	10	0	0	3	0	4	0
Northwestern Region ...	0	0	0	0	38	0	39	1
Central Western Region...	9	0	10	4	22	4	32	0
Southwestern Region ...	0	0	0	0	34	7	43	29
Total, Western District	9	0	10	4	94	11	114	30
United States... ...	141	34	219	60	413	88	551	115

Inefficiency of Railroad Terminal Operation—American railroads, as a rule, are highly efficient in the line haul freight service, but the movement of carload and less-than-carload freight in the termini is often deplorably inefficient. Mr. F. J. Scarr has commented: "We are conducting transportation through what are, frequently, inadequate facilities and antiquated methods, and inefficient terminal operation. These conditions are the result of the rapid growth of our cities with the consequent increased and more exacting demands and the lack of space to expand to

4. I.C.C. Docket No. 23,400, "Statistical Summary of Investment and Operating Figures Reported by Class I Railways in Questionaire," November, 1930.

meet new requirements. The advent of the new transportation tool (the motor) has temporarily added to the confusion."[5]

Terminal inefficiency of the American railroad operation is due to several factors.[6] In the first place, there is the rapid increase in population of the United States and an even faster growth of large cities. Consequently, the increase in railroad facilities failed to keep pace with the growth of railroad freight tonnage, and congestion in the terminal is the inevitable result.

Terminal congestion is further augmented by the competition of railroads and steamship companies for inbound and outbound traffic. They have been compelled to establish a large number of freight termini close to important industrial and commercial districts. As these centers shifted and new areas are developed, new competitive facilities have been established with the result that there is a ceaseless cross movement of traffic over the network of railroad tracks and over the streets of the cities, causing serious problems in traffic congestion.

It goes without saying that traffic congestion in many large terminal cities is partially due to the physical limitations of the city sites.

Other contributing factors regarding the in efficiency of railroad terminal freight service are the lack of city planning, inadequate traffic control, and inadequate freight station facilities, especially in sections of the cities where expansion is costly if not impossible because of prohibitively high real estate values.

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5. Scarr, F. J., Address before the Fifth Annual Convention, Western Society of Engineers, Chicago, April 21, 1926.

6. Terminal inefficiency was thoroughly treated by Professor G. Lloyd Wilson in an article, entitled "Coordinated Terminal Services," appeared in Traffic World, vol. XXXIX, May 14, 1927, p. 1267.

But the most important factor of all is the wasteful use of present railroad terminal facilities. It is the prevailing practice of the railroads to notify the consignee of the arrival of L. c. L. freight after it has been unloaded in the freight house, or after the cars containing carload freight have been placed on the team or industry tracks. The consignee is allowed 48 hours free time for the loading and unloading of carload freight and for the removal of L. c. L. freight from the freight stations. Partly because of the unorganized cartage methods and inadequate storage facilities and partly because many goods are sold after arrivals at the terminal, a large proportion of the consignees take full advantage of the time allowance. Consequently, carload shipments, on the average, remain on the team tracks in excess of two days and inbound L. c. L. shipments remain in the freight houses for an average of three days.[7]

This wasteful use of railroad cars naturally ties up a large amount of the railroad equipment and has caused a general slowing down of the entire freight-house operation. The same result is produced by shippers dumping their outbound goods upon the freight house at the last moment, thus in turn increasing cartage inefficiency and costs by delaying the trader's vehicles.

Another practice of the railroads that contributes to traffic congestion and involves wasteful use of cars is the uneconomic handling of "trap cars" by industries that have sidings. Such cars, generally loaded only to a small fraction of their capacity, have to be switched to a transfer platform or freight station located in the break-up yard of the rail carrier or elsewhere. Here the freight has to

7. The Chamber of Commerce of the United States, Report of the Special Committee IV, "Relation of Highways and Motor Transport to Other Transportation Agencies," November 2, 1923, p. 11.

be rehandled and consolidated into cars for the line haul. The railroads themselves also make a similar use of cars for interchange of l. c. l. freight. In some cities rail cars are employed for movement between local freight houses and general assembly and distribution stations.

The report of the Special Committee of the Chamber of Commerce of the United States has reached the conclusion that "The general demand for more and better rail transportation is insistent, and that the railroads are confronted by a serious dilemma. They must either add to their present terminal facilities or find a way to pass more freight through them. Enlargement or multiplication of terminal stations and team tracks in important terminal areas is practically impossible because of prohibitive cost, objections of municipalities to the expansion of railroad holdings in congested areas, and furthermore the additional traffic congestion that would result from greater centralization of cartage operations in such areas."[8]

Use of Motor Trucks in Terminal Freight Services—The rapid development of the terminal problem makes it necessary that immediate steps be taken to relieve the situation. The motor-truck has been proven to be an efficient terminal carrier of freight and is being utilized to solve the terminal problem in the following ways: (1) for freight interchange between railroads and substation service; (2) for replacement of trap-car service to industries; (3) for intraterminal movements which are usually slow and inefficient when performed by railroad freight cars; and (4) for store-door delivery service.

1. Freight interchange between railroads and substation service—Railroads have built substations outside of the congested district. At such stations, l. c. l. freight is concentrated, unloaded, and rehandled for distribution in

8. Ibid., p. 12.

cars to various stations, some of which are their own stations located in the business section and others are the stations of connecting lines. The use of cars for this service not only seriously delays the traffic but also adds greatly to the congestion of the termini. At Cincinnati, the average interchange operation took 62 hours by railroad freight car and 72 hours by horsedrawn dray.[9]

The substitution of motor trucks for freight cars in interchange and substation service has achieved important operating economies and relief of terminal congested conditions. The experience in Cincinnati and St. Louis, is very interesting and shall be briefly described.

Before motor trucks were employed for the coordinated terminal freight service, railroads entering Cincinnati had established their first freight stations in the river-front district. As new industrial districts developed, the railroads had to establish branch freight depots. Less-than-carload freight was delivered to these branch stations from the main freight stations in the down-town districts and from the branch depots to the main stations for movement to outside destinations by means of "ferry" cars. In addition, a considerable volume of such traffic had to be interchanged by connecting lines in the terminal. The railroad facilities were so overtaxed that improvements involving more than $12,000,000 were deemed necessary to cope with the situation.

On May 10, 1919, the Cincinnati Motor Terminal Company made contracts for the handling of the less-than-carload freight by motor trucks between the main and substations of all railroads entering Cincinnati. The railroads load freight into and unload it from demountable containers, which together with hoists and motor vehicles

9. Wilson, G. Lloyd, "Coordinated Terminal Services," The Traffic World, Vol. XXXIX, No. 26, June 25, 1927, p. 1654.

are provided by the trucking company and operated and maintained at its expense.

The trucking company handles about 30 per cent. of all less-than-carload freight in the Cincinnati terminal, about 75 per cent. of which represents freight interchanged by the railroads and the remainder is freight moving between stations and end stations of the same road.[10]

The handling of less-than-carload freight by motor trucks to and from freight houses of the roads terminating at St. Louis, Mo., and East St. Louis, Ill., and in interchange between these roads has furnished a good illustration of how motor trucks could be used to advantage to improve terminal freight services where physical obstacles have prevented the construction and connection of adequate railroad facilities.

The situation at St. Louis is in a way unique, owing to the fact that the Mississippi river served as a barrier to the lines from the north, south, and east, reaching the East St. Louis side of the river prior to the construction of the Eads bridge in 1876. By the time the bridge was open to the railroads on the east side of the river, much of the choice location for railroad facilities convenient to the shipping district had been acquired by the railroads entering St. Louis from the west, so that it was difficult and expensive for the railroads from other directions to acquire adequate space for freight house and trackage facilities.

Prior to the construction of the Eads bridge, freight from, St. Louis to points east of the Mississippi, that to St. Louis from east of the river, and that to be interchanged between the eastern and western carriers at St. Louis was ferried across the river. After the bridge was opened, there was considerable increase in the cartage or transfer business and a number of local transfer companies were

10. Ibid.

competing actively in the service. The St. Louis Transfer Company and the Columbia Transfer Company established off-track stations for the receipt and delivery of freight of shippers and for the handling of connecting line business.[11]

The rates of the eastern lines for many years applied to traffic originating at or destined to St. Louis proper were higher than those applied to and from their East St. Louis. In 1910 the eastern railroads agreed to apply the East St. Louis rates to St. Louis proper. This resulted in the railroads making the St. Louis and the Columbia companies their agencies in St. Louis and accordingly, the rates of the railroads to and from St. Louis were applied to and from the depots of these companies.

In April, 1918, the Columbia Transfer Company acquired all of the capital stock of the St. Louis Transfer Company and the equipment and the facilities of the two companies were merged, operating under the name of the Columbia Terminals Company.

The Columbia Transfer Company began to experiment with motor trucks in 1914, Because of the loss of time during the transfer of the freightly directly from the shippers' trucks to those of the terminal company, they did not prove economical and attention was directed to the development of a system of trailers which could be loaded "dead" and moved by tractors. This tractor-trailer system, which permits one tractor to handle three or four trailers as fast as they can be loaded and unloaded, has been successful in reducing the cost of operation and the company has replaced horse-drawn vehicles entirely with tractors and trailers since 1924.

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11. Off-track stations are furnished and operated by the transfer companies as the agents of the railroads, where they receive and deliver freight for the rail carriers.

The Columbia Terminals Company is now engaged in the transportation of less-than-carload freight between St. Louis and the railroad freight stations in East St. Louis, in the interchange of less-than-carload freight between the eastern and western railroads, and in store-door service or local cartage service. It operates six outbound and four inbound "off-track" freight depots in St. Louis, for handling outgoing and incoming freight from shippers or for consigness.[12]

The chief advantage in the use of motor truck lies in the maintenance of interchange and substation service without increasing railroad equipment and in the elimination of congestion in the terminal. The time required in the interchange operation has been reduced to a maximum of 10 hours at the Cincinnati terminal by the employment of automotive equipment as compared with 52 hours by railroad freight car and 72 hours by horse-drawn dray. In St. Louis about 75 per cent. of the interchange freight in 1928 was delivered to the connecting lines the same day it was unloaded at the platforms of the roads, whereas less-than-carload freight interchanged by all-rail service would take two to three days.[13] Then there is also a remarkable reduction in loss and damage and in the expense of drayage to shippers and the cost of interchanging freight.

2. Replacement of trap-car service to industries—Railroads perform trap car service by delivering to or

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12. For description of the St. Louis plan of terminal coordination see "Transfer in St. Louis and East St. Louis by Dray and Truck," 155 I.C.C. 129; Wilson, G. Lloyd "Coordinated Terminal Services," The Traffic World, vol. XXXIX, June 11, 1927, p. 1538; Wilson, G. Lloyd Wilson, "Coordinated Motor-Rail-Steamship Transportation," chaper IV; and "St. Louis Roads Coordinate Rail and Motor Service," Railway age, vol. 74, No. 30, June 30, 1923, p. 1689.

13. Wilson. L. G., "Coordinated Motor-Rail-Steamship Transportation," 1930, Appleton, New York, p. 46.

moving from private industrial sidings the inbound and outbound less-than carload freight. They absorb the expense of trap car service out of the through less-than-carload rates, provided the requisite minimum amount of less-than-carload freight is contained in each trap car.

This service is one of the special privileges of the trader and has long been recognized by the railroads as unprofitable. It is not only expensive but also gives the large industries having private side track what is equivalent to free store-door collection of l. c. l. freight.

An increasing number of railroads are substituting motor trucks in lieu of trap car service. The Boston and Maine formerly provided trap car service where there was a minimum of 8,000 pounds of less-than-carload merchandise from a consignor in a two-day period. This service is now performed by motor trucks with a limited period of one day.[14]

3. Intraterminal movements—Intraterminal movements include the local movement of freight between different industries or different plants of the same industry within the terminal area and between terminal cities and their suburbs.

The substitution of motor trucks for intraterminal rail movements has considerably reduced the time of delivery of less-than-carload freight. The number of lightly loaded cars is also reduced.

4. Store-door delivery service—Store-door delivery is defined as the function of moving freight from the terminus of the delivering rail carrier to the premises of the consignee on incoming traffic by rail and from the premises of the consignor to the the terminus of the

14. "Coordination of Motor Transportation," I.C.C. Docket No. 23,400, Examiner Report, sheet 72.

receiving rail carrier on traffic outbound by rail.[15] Store-door delivery service includes carload as well as less-than-carload freight, although general interest commonly stops with the inclusion of less-than-carload freight.

Limited application of store-door delivery has prevailed in the United States at various times and places, but it has never been general. Early history of the store-door delivery service dated back to 1867 when the Philadelphia, Baltimore and Washington Railroad in that year established this service in Baltimore. When that road was absorbed by the Pennsylvania system in 1881, the delivery service was taken over and continued. The Pennsylvania Railroad started the service in Washington in 1883, and in 1886 the Baltimore and Ohio Railroad began store-door delivery in Baltimore and in Washington simultaneously to maintain competitive equilibrium. Both railroads provided free delivery of less-than-carload freight, with the exception of many goods, from eastern and New England points ot the store-doors in Baltimore and to substantially all of the city of Washington, and also for the pick-up of goods when destined to eastern points. The service did not include traffic to or from southern or western points.[16]

This form of store-door service continued in operation for more than forty years until the decisions of the Interestate Commerce Commission, requiring the carriers to remove discrimination in service against the outlying sections of Washington which was not accorded free store-door delivery, caused the carriers to abandon the service

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15. Henry, R. A., Director Bureau of Economics, Canadian National Railway, "Canadian Store-door Delivery," Railway Age, October 27, 1928, vol. 85, No. 17, p. 856.

16. "Washidgton, D. C., Store-Door Delivery," 27 I.C.C. 348.

in 1913.[17] As its retention at Baltimore would be prejudicial to Washington, the Commission sustained the carriers in withdrawing this service at Baltimore,[18] thus putting an end to the first stage of the store-door service in the United States.

Traffic congestion both during and immediately following the World War gave new impetus to the installation of store-door service.

The St. Louis terminal rail-motor coordination, which we have already described in connection with the transportation of less-than-carload freight between St. Louis and the railroad freight stations in East St. Louis and the interchange of freight between connecting lines, also includes store-door service. Under the arrangement made between the railroads and the transfer companies, any recognized trucking company, listed in the rail tariffs, receives freight at on-track stations in East St. Louis and hauls it to the consignees' store doors without passing through the off-track stations, but through "constructive" stations on the west bank of the river. These stations are simply imaginery points on the river bank without corporal existence where the clerical work and manual labor incident to the forwarding and receiving of freight may be physically accomplished. No stop is made there, but they are the dividing line between carrier and consignee agency responsibility. From the moment the freight is received at East St. Louis until it passes a constructive point at the west end of Eads Bridge the trucking company acts as the agent of the carrier. Thereafter it acts as the agent of the consignee.

17. "Caesar E. Casassa v. Pennsylvania Railroad Company et al", 24 I.C.C. 629, Decided June 8, 1912; "Anacostia Citizens Association v. Baltimore & Ohio Railroad Company et al," 25 I.C.C. 411, Decided December 3, 1912.

18. 30 I.C.C. 388; 27 I.C.C. 347; 30 I.C.C. 455.

On outbound shipments the situation is the same in principle. No actual handling of freight occurs, but rather a purely constructive delivery acceptance is made.[19]

This is rather a modified form of store-door service in the sense that instead of the carrier bearing the full haulage costs, they are divided at the constructive stations.[20]

In 1921 the Erie Railroad adopted a system at New York similar to that at St. Louis, embodying most of its important features.[21] With the exception of the New York Central and New Haven systems, the rail termini of the carriers approaching New York end on New Jersey water-front, but these rail-heads are connected with the pier stations of the railroads in Manhattan through the use of car floats, lighters, barges, and towboats. Less-than-carload freight must be unloaded from cars in the Jersey terminals into the lighters or barges to be towed across the harbor to the pier stations where the freight is again unloaded upon the pier. The operation of these pier stations has been costly.

The Erie Railroad has employed the United States Trucking Corporation as its exclusive agency to truck freight from New Jersey team tracks directly to inland stations on Manhattan, or directly to the consignees' doors if the latter so desired. Thus it has avoided the use of pier stations and lighterage but has established in its place the constructive stations and inland stations. It is

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19. "St. Louis Terminal Case," 34 I.C.C. 453, 458, decided June 28, 1915.

20. "Transfer in St. Louis and East St. Louis by Dray and Truck," 155 I.C.C. 129, 151.

21. "Constructive and off-track Stations," 156 I.C.C. 205,208.

one way of meeting situations like those at New York where the ordinary rails of a carrier stop short at the destination to which it holds itself out to carry and it becomes necessary to continue the movement by other means.

Other railroads seeking to enter New York followed the example of the Erie. The Lehigh Valley inaugurated the Constructure station service on December 29, 1924; the Delaware, Lackawanna and Western on April 1, 1925; the New York, New Haven and Hartford on September 18, 1926; the Baltimore and Ohio on March 1, 1927; and the Pennsylvania on June 1, 1927.[22] The New York Central, with on-track stations at Manhattan, viewed with alarm this invasion of its logical territory and began to feel the efforts of the competition of the constructive station. It conceived the idea of allowing truckmen performing trucking in lieu of lighterage to merely touch or pass by the lighterage point nearest and en route to the consignee and continue on under load to the consignee's door. It paid allowances ranging from 8.5 cents to 15 cents per 100 pounds to cover the service between rail head and lighterage points, and for the service beyond the truckmen collect charges from the shippers.[23]

The Interstate Commerce Commission found in a case decided July 13, 1929, that the constructive station facilities resulted in competitive abuses. As a result the operation of constructive stations was abandoned by the railroads serving New York on September 25, 1929. The carriers have substituted inland freight stations for the constructive stations.

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22. Ibid., 212.

23. Ibid., p. 211, this service is called constructive-lighterage service.

In pointing out that the situation at New York is not at all comparable with that at St. Louis where the Commission had approved the continuance of constructive stations, it said:

> The physical situation at St. Louis lends itself peculiarly to the constructive-station plan. The constructive station used by all lines, being at the first point of contact with the St. Louis shore, is so located that by providing service to and from it the carriers are performing the minimum of the transportation service which they hold themselves out to perform, and yet are performing the full service to which they are lawfully obligated by their published tariffs. There is not attempt on their part, by groups or individually, to reach out with the constructive station, beyond their lawful obligations, for the purpose of securing tonnage, one from the other. A constructive-station service operated purely as a convenient, expeditious, and economic means of completing a contract of carriage merits approval. The same service, if operated solely as a competitive measue to secure business from a rival carrier more favorably located in respect of certain traffic,may become burdensome to the carriers and to commerce as a whole.[24]

Other limited applications include the store-door service of the Boston & Maine, the Texas and Pacific Railroad, the St. Louis-Southwestern, the Missouri Pacific in Arkansas and Texas, the Missouri-Kansas-Texas of Texas, the Spokane, Portland & Seattle, the Pacific Electric, the Southern Pacific lines in Texas, the Pacific lines of the Southern Pacific, and the Yazoo & Mississippi Valley, a subsidiary of the Illinois Central.[25]

Study of the plans for store-door service in the United States reveals the following reasons for its adoption: (1) Delays and congestion at the railroad freight termini could be relieved more economically by adopting the store-door service than by the costly expansion of the termini;

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24. 155. I.C.C. 129.
25. 182 I.C.C. 339.

(2) The service is adopted as a step toward economy and elimination of expensive rail operations; (3) The service is established to meet the competition of other lines; (4) The service is designed to recover lost less-than-carload traffic and to attract additional traffic.[26]

The details of operation of the service may vary considerably. The usual practice of the railroad is to organize a subsidiary trucking company which makes contract with local draymen for store-door pick-up and delivery service and is also responsible for the quotation of rates and the issuance of bills of lading. The rates are generally the standard rail station-to-station rates, although sometimes they are made to equal competitive trucking rates. The subsidiary company remunerates the local draymen, pays the railroad for the line haul, and, after the deduction of a percentage for contingencies and another percentage for return on its investment, pays over the remainder of its gross receipts to the railroad. Provision is generally made for the sharing of joint expenses. The service is city wide for the smaller communities and is confined to a defined zone for the larger ones, additional charges being made for movements to and from other zones.[27]

This method of operation is illustrated by the plan of the Spokane, Portland & Seattle Railway Company. A subsidiary company was incorporated in October, 1930, under the laws of the state of Oregon. AlthoNugh its charter powers are broad enough to permit it to engage in any form of transportation service, so far it has confined its operation to a complete store-door pick-up and delivery service between points on the rail lines of its parent company. The subsidiary company effected contracts with

26. 155 I.C.C. 213 182 I.C.C. 341, The railroads expect to recover 75 per cent of less-than-carload traffic lost to motor trucks.
27. 182 I.C.C. 339.

rail lines and draymen to perform all services incident to the transportation of its business. The subsidiary company pays the rail lines for the use of its station and yard facilities and pays drayage pick-up and delivery charges. After the general overhead expenses are met, the balance is remitted to the rail line for the line-haul transportation.

The tariff filed by the carrier with the Public Service Commission of Oregon, publishes rates to meet standard truck line rates. Its class rate scale averaged silghtly higher than the rail scale between common points, but its commodity rates gave lower minima and broader groupings than rail lines have published under carload ratings.[28]

A simpler method of operation than the one described above is being experimented by the railroads serving Southwest. The pick-up and delivery service is provided free of charge on less-than-carload freight at about 3,000 stations in the States of Arkansas, Colorado, Illinois, Kansas, Louisiana, Mississippi, Missouri, Nebraska, New Mexico, Oklahoma, Tennessee, and Texas, effective October 1, 1931. The tariff provides that store-door delivery and pick-up service will be offered without extra charge on all shipments up to 300 miles. Beyond the specified distance the charge for this service will be 20 cts. a 100 lbs. In order to receive this service the shipper or consignee must request it and his place of business must be within the corporate limits of a city or town or the radius of one mile from a railroad station not located in a city. The service is not given at all points in the area but only at large centers where the volume of traffic is substantial and drayage service is available. On shipments not entitled to free pick-up service, a charge of 10 cents per 100 pounds is assessed for such service in addition to the

28. Forbes, F. R., "Meeting Competition with Equal Service and Rates," Railway Age, May 23, 1931, Motor Transport Section, pp. 1043-44; I.C.C. Docket No. 23, 400, vol. 14, p. 3520.

regular freight charges, and on shipments not entitled to free delivery service, a charge of 10 cents is made, except that no charge is be made for delivery service on shipments that have been assessed a charge for pick-up service. An allowance of 5 cents per hundred pounds is paid to consignors where the pick-up service authorized is performed by the consignors.[29]

The rail carriers state that free pick-up and delivery service has been limited to hauls of approximately 300 miles due to the fact that the radius of intensive truck competition is taken as 300 miles or less from the industrial centers.[30]

This arrangement eliminates the necessity for any subsidiary trucking company. In effect, the former represents a transtitional stage.

The advocates of store-door service believe that it will increase the capacity of the freight houses by expeditious clearance of the inbound traffic. The prevailing practice gives the consignees an allowance of 48 hours free time after the sending of arrival notices within which to arrange for the haulage of the goods to their places of business. During this interval, an enormous volume of freight is stored in railroad cars or terminal stations. Under the store-door delivery plan, inbound l. c. l. freight would be delivered promptly upon arrival.

With the existing unorganized cartage methods, each trader sends to the terminal station his own or a hired vehicle to deliver or receive this particular freight. As a consequence, the driveways at the terminals and the streets leading to it are burdened with innumerable number of trucks and wagons containing only partial

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29. Southwestern Lines' Tariff No. 88, issued August 19, 1931, Effective October 1, 1931.

30. "Southwestern Rails Battle Trucks with Free Store-door Service," Business Week, September 9, 1931, p. 15.

loads. It is thought that store-door service would eliminate many of the trucks and greatly increase the load efficiency of those that remain.

A distinct advantage which would follow from the establishment of store-door service is that the railroads would be able to give up the expensive city termini and relocate their l. c. l. freight stations at the outlying districts, readily accessible to highway vehicles. While shippers naturally want to have the freight stations located nearest to their industries when they are obliged to furnish their own cartage under the prevailing practice, with store-door service it will be a matter of indifference to receivers as to where the transfer of freight from rail to truck takes place.

Although the cost of store-door service should be borne by shippers and consignees, economies in operation realized would be reflected in lower cartage rates.[31] It is also claimed that loss and damage would be largely reduced through less exposure of freight on platforms.

One of the principle objections to the establishment of store-door service is the apprehension of the railroads that if they established the service in one locality where the traffic conditions seem to justify it, they may be compelled to extend it to other localities where attainable economies do not warrant its application. The breakdown of the store-door service in Washington and Baltimore has indicated the difficulties involved. "The experience thus far gained by us in store-door litigation is that communities denied the service are quick to complain of undue prejudice. The New Jersey interests have clearly indicated such a position in this case. In the Washington Store-door Cases, supra, the first complaints came from sections of

31. Banham, W. J. L., "Coordination of Motor Truck and Railroad Transportation," Shipper and Carrier, Vol. 4, May, 1923, p. 135.

the city not accorded the service. Upon a finding of undue prejudice and the removal of it by discontinuing the service entirely, the next step was a similar attack against the granting of service at Baltimore."[32]

Opposition may also come from shippers and consignees. Some are opposed to the store-door service because they fear that the freight may be delivered to them at a time inconvenient to receive. Traders may have favorable contracts with teaming companies which cover local deliveries as well as traffic to and from the railroads. Rates are based on the total tonnage given the contract teaming company. Since the l. c. l. tonnage outbound and inbound for a given firm seldom balance, the inclusion of local deliveries in the contract often prevent an empty return movement.[33]

Rail-Motor Line-Haul Coordination—The Motor truck has caused serious difficulties to the American railroads so far as the short-haul movement of less-than-carload freight is concerned. Shippers often do dispatch their short-distance freight by motor trucking companies operating along the highway systems competitive with railroad lines. The volume of the less-than-carload freight traffic has decreased so rapidly that serious losses have incurred upon the operation of way-freight trains and the rail carriers are discontinuing such service whenever possible.

Carriers are often obligated by the provisions of the charters and franchises to cointinue the service in the interests of the communities served, even though they may be operating at loss. To escape from this unfortunate plight, railroads have found rail-motor line haul coordination a happy solution to their problem.

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32. 156 I.C.C. 233.

33. Sorrell, L. C., supra cit., p. 22.

Types of Rail-Motor Line-Haul Coordination—Rail-motor line-haul coordination has developed along the following lines: (1) replacement of local freight trains by motor trucks; (2) transshipment of freight from parallel branch lines across-country to main lines stations; (3) motor truck as freeder to railroads; (4) all-highway service; (5) container car service; (6) transportation of truck body by railroad; (7) coordination by transportation of railwagons.

1. Replacement of local freight trains by motor trucks—Local freight trains are made up with cars of merchandise freight loaded in station order for stations along the division. The freight was unloaded from these cars at the different stations by the train crews.

It is generally recognized that way-freight train operations are unprofitable because of the number of transfers required and the light loading of cars. The time required is also much longer than that of the trucking movements. The difficulty of such operations is increased in some instances by the round-about character of railroad lines.[34] Therefore, a number of railroads during recent years have been substituting motor trucks for local peddler trains in station-to-station service wherever savings could be effected and the handling of traffic expedited. Regular rail rates usually apply but no store-door service is furnished. Substitution of motor for rail transportation is not shown in the tariff.

The Pennsylvania and New York Central were the first railroads to substitute motor trucks for local freight trains. The Pennsylvania began motor service in January, 1923, at Cambridge, Md.[35] The use of trucks in lieu of way-freight operations has been gradually extended until

34. 182 I.C.C. 336.

35. Wilson, G. L., "Special Freight Services," Traffic World, Vol. XXXVII, No. 17, April 24, 1926, p. 1135.

it now operates over 49 routes and 1,770 miles daily.[36] These trucks are operated under uniform contracts with independent truck companies.[37]

The New York Central inaugurated motor service for the transportation of less-than-carload freight in January, 1933, in the Buffalo district to relieve serious box car shortage.[38] Started out as it originally was for an emergency measure, the advantages of trucking were so clearly demonstrated that similar service was started on a number of other divisions.

According to the New York Central's plan of coordination, less-than-carload freight is sent by rail to distributing points, thence delivery is made by truck to local stations. The trucks bring freight collected at local stations as return loads to the distributing points to be forwarded by rail. The length of haul between local stations and the distributing points varies from 15 to 20 miles, althiugh in some instances it is over 50 miles long.[39]

The plan of using motor trucks to bring less-than-carload freight from local stations to concentrating points and deliver it in the reverse direction in replacement of way-freight trains is also adopted by the New York, New Haven & Hartford and by the Boston and Maine railroad.[40]

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36. 182, I.C.C. 337.

37. I.C.C. Docket No. 23,400, Report of, Examiner Flynn, sheet 73.

38. Wilson, G. Lloyd, "Coordinated Motor-Rail-Steamship Transportation," p. 97.

39. I.C.C. Docket No. 23,400, Examiner report, sheet 72.

40. Fritch, H. F., "Motor Coaches and Trucks Help the Boston and Maine," Railway Age, Vol. 86, No. 25, June 22, 929, Motor Transport Section, p. 1514.

Through the use of motor trucks, local freight is delivered often one or two days earlier.[41] Furthermore through trains have been operated on faster schedule because only few local freight stations are provided with sufficient siding capacity to allow local freight trains to clear the main line. The withdrawal of way trains has increased the capacity of the tracks without additional capital expenditure.

Reduced operating expenses have resulted from the reduction in loss and damage on account of the reduced number of handlings by motor and reduction in overtime by avoiding the interference of way trains with other trains.[42]

Motor substitution of way-freight trains has so improved the service that in many cases traffic has been recovered from independent trucking concerns. "On the Trenton division of the Pennsylvania the improvement in

41. "The New York, New Haven and Hartford estimates that at least 70 per cent of the freight handled in this manner receives at least 24 hours better service than before. The New York Central, whose use of trucking has not involved as much adjustment as have the methods of some of the other roads, estimates that 38.5 per cent of the traffic handled receives better delivery and 6.6 per cent poorer.", 182 I.C.C. 337.

42. It is estimated by the Pennsylvania that the use of trucks results in an annual saving of approximately $1,335,000. These figures are based on the going rates for wages, locomotive repairs, locomotive supplies, enginehouse expenses, train supplies and expenses, plus interest and depreciation on the class of engine discontinued, less the contract cost of truck. The New York, New Haven & Hartford has reported a net reduction 350,000 train-miles per year, representing a saving, at $1.80 in out-of-pocket cost per train mile, of $630,000 per year, against which are to be set some 130,000 truck-miles per month costing $440,000 per year, leaving a net saving of approximately $190,000 plus a saving in car hire which in normal times would be as a net figure close to $150,000 per annum. 182 I.C.C. 337.

service through the substitution of motor units for the slower way freight trains has been so great that a number of shippers and consignees have discontinued shipping over independent motor haulage lines and the use of their own fleets in road haul service and given the traffic back to the railroad."[43]

The substitution of motor trucks for way freight trains has to be studied carefully by individual road. In some cases, the saving in overtime on a mixed local train by trucking the l. c. l. freight may not be sufficient to justify the operation of motor trucks. Substitution has been found most profitable in districts where there are a number of small stations rather than a few large ones.

2. The transshipment of freight from parallel branch lines a cross country to main line stations.—Freight on branch lines, running nearly parallel to main lines and from 5 to 25 miles apart, is frequently moved its whole length to the terminal by rail. Through rail-motor coordination, it is trucked across country to the main line stations and there combined.[44]

3. The motor truck as a feeder to the railroad—Trucks are sometimes used for operations to off-rail points to serve as a feeder to the railroad. The points served are necessarily small and the service is frequently on a seasonable basis. The independent truck operators, by reason of their own interline arrangements, do not, as a rule, serve as feeder to rail lines.[45]

4. All-highway service—When the motor truck replaces local freight trains and store-door service is

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43. Wilson, G. Lloyd, "Special Freight Services," Traffic World, vol. XXXVII, No. 19, May 8, 1926, p. 1290.

44. "Motor truck Successful as Railroad Ally," Railway Age, vol. 78, No. 27, June 6, 1925, p. 1409.

45. 182 I.C.C. 338.

provided in addition, the coordinated service becomes all-highway service.

The Boston and Maine, through its subsidiary company, the Boston and Maine Transportation Company, has united in one transportation system the local line-haul of the railroad with the pick-up and delivery service by motor vehicles. Trucks pick up less-than-carload shipments and deliver them directly to consignees in cities and towns where the service is offered. The carrier assumes complete responsibility as a common carrier. This all-highway service takes the place of that offered by local freight trains.[46]

5. Container-car service—The unit container is a box-like receptacle, made of steel, for the stowage of small packages and certain types of bulk freight. It is designed especially to facilitate and reduce the cost of handling less-than-carload freight. Physical features of the containers used by the New York Central are of the following specifications:[47]

Inside Dimensions:	Merchandise Containers	Brick Containers
Width	7 ft. x 0 in.	4 ft. x 1 in.
Height at eaves	7 ft. x 1 in.	7 ft. x 4¾ in.
Length	8 ft. x 10 in.	6 ft. x 11¾ in.
Outside Dimensions:		
Width over all	7 ft. x 2½ in.	4 ft. x 8¾ in.
Height over all	8 ft. x 2 in.	8 ft. x 2½ in.
Length over guids	9 ft. x 3½ in.	7 ft. x 4 in.
Capacity, space	438 cu. ft.	210 cu. ft.
Capacity, weight	10,000 lbs.	3,000 brick
Average light weight	3,000 lbs.	2,300 lbs.
Number per car	6	12
Opening	Locked Door	Dump Bottom

46. Wilson, G. Lloyd, "Special Freight Services," The Traffic World, vol. XXXVII, No. 19, May 8, 1926, p. 1288.

47. Sorrell, L. C. "Articles on Current Transportation Subjects," p. 23.

When a shipper uses container service, he obtains from the railroad the required number of empty containers. They are then loader, sealed and trucked to the freight station, where they are lifted by the railroad crane from the truck to the car. At the destination the process is reversed. The shipper bears all trucking expenses incident to the movement of loaded and empty containers between consignor's and consignee's warehouses and railroad freight station. The carrier's responsibility begins when the crane lifts the container and it ends when the container is deposited in the consignee's truck at destination. Demurrage charges of 50 cents per day or fraction thereof are assessed against consignors or consignees for retention of containers in excess of 24 hours.[48]

To facilitate the use of the container in smaller stations where cranes are not available, a drop-side gondola car has been developed, which is divided into six compartments, each holding one container. The drop-sides afford a runway between car and station platform. This device permits the use of lift-trucks to operate from the station platform in loading and unloading the units.

Each container may have several l. c. l. shipments, but only one bill of lading is issued to cover the contents of each container. It states the net weight, shipper's load and count. The rates are applicable to the loaded container and the weight used to arrive at the freight charge is the net weight of the loaded container. A memorandum should be attached to the bill of lading showing the various commodities and weights of each, if the container received by the carrier is already under shipper's lock.

In addition to merchandise container, several railroads have operated bulk containers in which are

48. "Container Service," 173 I.C.C. 377,382, Decided April 14, 1931.

hauled brick, lime, stone, and ore from and to various points.[49] The e containers have drop bottoms which, when released, permit the contents to be deposited in the truck. The rates used are commodity rates on the respective commodities lower than those which apply in ordinary service.[50]

For smaller shippers who do not have sufficient freight to fill a single container, the services of a freight forwarder are necessary.[51] It consolidates small shipments from individual concerns and loads them into containers for given destinations. The difference between container rates and the ordinary less-than-carload rates constitutes the profit of the forwarding company, although a part is passed to the shipper as an inducement to use its service. Shippers receive reductions of varying percentages of the class rates, beginning with 10 per cent. on first class and scaling down to 4 per cent. on fourth class.[52]

The New York Central is the pioneer of container service which was first offered in 1921 between Cleveland and Chicago, beginning March 19, 1921. This was abandoned later because of inadequate traffic, and in 1922 the service was established between New York City and Buffalo, Syracuse, and Utica. In 1928, the service was extended to Boston and Springfield, Mass., and to Wilkes-Barre, Pa.[53]

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49. New York Central, Boston & Maine.

50. 173 I.C.C. 377, 384.

51. That there are relatively few individual shippers of less-than-carload freight who can assemble 4,000 pounds or more of merchandise for a single destination is shown by the fact that the New York Central container car service was inaugurated in 1922, and up to 1928 it was used by only 140 or 150 individual shippers.

52. 173 I.C.C. 389.

53. Cunningham, Ross M., "The Steel Container as a Method of Handling Freight," Harvard Business Review, vol. VIII, No. 3, April, 1930, p. 329.

In 1922 the New York Central moved 68 container cars and 278 containers, with 1,436,085 pounds of freight and $5,701,58 of revenue. In 1930 the number of container cars was increased to 15,700. It moved in that year 47,886 containers and 323,903,813 pounds of freight with a total revenue of $1,116,714.79.[54]

On June 20, 1928, the Pennsylvania Railroad inaugurated the container service between Baltimore, Buffalo, Cleveland, Philadelphia, Pittsburgh, New York, Rochester, N.Y., and South Kearney, N.J. Up to January 3, 1931, a total of 63,084 containers were transported; 58,451 of which were loaded, and 4,633 were empty. This represented 93 per cent loaded movement—a very high ratio compared with any other class of equipment in service.[55]

The Pennsylvania has also used containers to replace box cars. It was found that approximately 30 per cent. of the box cars it hauled were carrying loads of less-than-carload freight averaging about 6 tons per car, or only 12 per cent of their capacity. To secure more efficient operation, the container has been placed in service for transportation of less-than-carload freight at regular rates from station to tation, particularly where the tonnage is light and insufficient to justify the direct station-to-station movement of a box car. In some cases the containers are loaded at stations on a truck chasis and trucked to a consolidating point within a city where they are loaded on rail cars. In other instances, the freight is loaded directly into the containers while on the cars.[56]

Other important users of containers are the Boston & Maine, the Lehigh Valley, the Missouri Pacific, and the Cincinnati Motor Terminals Company.

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54. I.C.C. Docket No. 23,400, Report of Examiner Flynn, p. 76.

55. Deasy, J. F., "The Coordination of Rail and Highway Transportation," p. 2.

56. Ibid.

The advantages of container service are different for the carrier and the shipper. Moreover, they are defferent for a shipper who uses the service direct from a shipper who must employ a freight forwarder.

The advantages of container service to the carrier will be considered first. (1) The most striking economy is the virtual elimination of loss and damage claims. In the seven years in which containers have been used, no claims have been filed against the railroads.

(2) Another source of saving is found in the reduction of both manual and clerical labor in railway freight houses. When merchandise is already packed in containers, the railroad is relieved of from two to four platform handlings, depending whether the freight ordinarily moves from origin to destination in a through package car or must be transferred en route. Rates for platform labor vary with locality, but a commonly accepted figure is about $2 as the cost of loading and unloading a ton of l.c. l. freight.[57] The saving in the clerical expense is derived from the issuance of one bill of lading instead of as many bills of lading as the number of individual shipments loaded in one container. The elimination of the above two items of expenses in cents per 100 pounds was estimated by the carriers as follows:[58]

	New York Central Cents	Pennsylvania Cents	Lehigh Valley Cents
Clerical costs	12.6	9.7	5.9
Platform costs	11.55	11.55	7.8
Totals	24.15	21.25	13.7

57. Sorrell, L. C., supra cit., p. 24.
58. 173 I.C.C. 401.

(3) The use of containers results in heavier loading than is possible in l. c. l. box cars. The New York Central in Container Service case submitted evidence to show that between certain cities 438 box cars were used to transport 4,919,433 pounds of less-than-carload freight, an average loading of 11,231 pounds, or 5.6 tons per car. In the container operation 381 cars were used to transport 8,676 pounds of freight, an average loading of 22,770 pounds, or 11.3 tons per car. The relatively heavy loading of the container cars may be partly due to the fact that the tonnage is largely handled by the forwarding companies who are in a position to pack and to select tonnage so as to make heavier loads.

(4) Another advantage of the use of container cars is the possibility of regaining traffic lost to motor trucks. Certain high-value commodities, like silk and other valuable textiles, which were formerly moved in armored motor trucks can now be moved with equal safety in a container.[59]

It is not clear to what extent the above advantages mentioned will be offset by the disadvantages of container car service. In the first place, the container car means added investment in cars, containers, and cranes. The l. c. l. containers cost $320 each, or a total of $1,920 for a battery of 6 ordinarily loaded into a steel gondola, which costs about $2,000. As against $2,000 for an ordinary box car, the container car equipment means a considerable increase in the initial investment. In the second place, there will be an increase in the overhead cost on l. c. l. traffic that remains to be handled through the old facilities, since all the l. c. l. tonnage cannot be turned over to the container car and the platform must be retained for that

59. Cunningham, Ross M., "The Steel Container as a Method of Handling Freight," Harvard Business Review, vol. VIII, No. 3, April, 1930, p. 332.

traffic. Finally, greater empty mileage may result from the use of the container car. The box car can be used for l. c. l. freight as well as c. l. freight, while a unit container is for l. c. l. traffic only. Where the c. l. traffic preponderates in one direction and l. c. l. traffic in the reverse direction, the container car may cause an increase in the empty mileage of car movement.

To shippers who can use the container car service without the intervention of a forwarder, the service offers the following advantages: (1) One positive benefit is the elimination of clerical expenses associated with the filing of loss and damage claims and tracing shipments. (2) Expensive packing is unnecessary when shipped in container. (3) It has saved labor cost in preparing boxes or crates, in additional handling of shipments when not in container cars, and, for incoming shipments, it has eliminated the labor cost of unpacking less-than-carload shipments. (4) It expedites the movement of less-than-carload shipments in transit both at the points of origin and of destination. Particularly this is true on shipments consigned through the Port of New York to various steamship lines for movement via water routes, to the extent that it keeps the entire shipment intact, eliminating astray freight and also lessening the work of assembling documents. (5) There is great saving in l. c. l. freight rates.

Shippers who cannot furnish unit loads of 4,000 pounds or more and who must employ a forwarding agent in order to use the container service will not, of course, realize such substantial savings.

6. Transportation of truck bodies by railroads—Some railroads believe that the preponderance of truck competition is within the 250-mile zone from a given large city and the solution of the problem lies in the establishment of a coordinated transportation arrangement whereby

the railroad would be relieved of a portion of its terminal work while the trucker would be relieved of the line haul.

Under this arrangement, the trucker delivers his truck body to the railroad and it is lifted by crane and placed on a car. The rail carrier transports the truck body to destination, where it is placed on a truck chasis for terminal delivery by the trucker. The rail carriers accept all commodities except certain restricted articles. A flat rate is charged for the transportation of truck bodies, the rate being graded according to the size.

Several railroads, the Pennylvania, the Balitmore and Ohio, the Reading, the Central of New Jersey, and the Lackawanna have filed truck-body tariffs with the Interstate Commerce Commission, effective November 5, 1931, for application between Baltimore, Md., and Jersey City, Baltimore and Richmond, Va., and Phildadelphia and Jersey City.[60]

Advantages in favor of the transportation of truck bodie are as follows:[61]

(1) Lower transportation cost for the public.

(2) Reduction in loss and damage to freight through the elimination of its physical handling.

(3) The more expeditious handling of freight traffic.

(4) The provision for a voluntary pick-up and delivery service to be performed by the trucker at the termini.

(5) A reduction in cost as compared with highway trucking.

(6) A more economical rail operation through the elimination of physical handling of freight at stations, and the necessity for providing stations to handle the freight.

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60. 182 I.C.C. 344.

61. Deasy, J. F., "The Coordination of Rail and Highway Transportation," p. 5.

7. Rail-motor line-haul coordination by means of railwagons—Railwagons are used only recently. Since September 15, 1931, an electric railway has used the railwagon between Cleveland and Toledo, Ohio. It is run onto a ramp and a flat car is moved under it. The wheels of the railwagon drop below the platform of the flat car and utilize the space ordinarily taken up by car journals.

There is still another type of railwagon in use on an electic railway between Chicago, Ill., and Milwaukee, Wis. It is rolled upon a flat car with the wheels of the railwagon resting upon the platform of the flat car and therefore making it necessary to have a lower truck body than in the other type of railwagon.[62]

This devise is said to facilitate the making up and breaking down of trains, to effect quicker collection and delivery, and to save railroad station and terminal expenses.

62. I.C.C. Docket. No. 23,400, Report of Examiner Flynn, p. 79.

CHAPTER VIII

STATE REGULATION OF MOTOR CARRIERS

Broadly speaking, state regulation covers all state action that effects the conduct of the motor industry. Defined in this sense, it includes the traffic laws which are designed for the safety and the protection of highways, the manner of taxing motor vehicles, and finally the regulation of motor carriers as a public-service industry by establishing the requirement that a certificate of public convenience and necessity be secured, liability insurance or an indemnity bond taken out, rates filed with regulatory bodies, and the quality of service subjected to supervision. It is with the last phase of state control that this chapter is concerned.

That motor transportation should be subjected to similar regulation as applied to other public utilities is generally conceded, but motor-carrier regulation rests upon a different foundation originated by the differences between it and the other members of the public utility group.

The fundamental concept lying at the base of the regulation of railroads and other public utilities is virtual monopoly. "Businesses have long been regarded as affected with a public interest whenever, through a lack of continuous and complete competition, they were in a position to injure the consumer by withholding service or charging unreasonably for it. A number of functions, such as those of the smith, the doctor, and the victualler, once regarded as 'public' services have under the fuller competition of recent times, been omitted from the category; but the carrier remains in it. Alternative carriers have seldom been so readily available as to

make the refusal of service by one of them a matter of slight importance. The uniqueness of this service has doubtless been emphasized by the peculiar responsibility of the carrier with regard to the person or property of another; and given impetus by the crude and lawless conditions of an earlier period, an extensive body of law has developed defining the common carrier's liability."[1]

The same philosophy which the regulatory bodies and state legislatures have developed for regulating railroads and local utilities can not be applied to motor carriers. Commissioner Woodlock has truly said that "Transportation by motor bus and motor truck does not necessarily depend upon monopolistic or semimonopolistic organization or performance. It is manifest that at the present time these services are much more largely of a competitive rather than of a monopolistic nature."[2] Competition of motor transportation is not restricted by the rigid operation over rails nor discouraged by the magnitude of their cost. The motor carriers can always begin with a small amount of capital expenditure and as business increases their organizations can be expanded accordingly. Many motor operators, sadly in lack of familiarity with business methods, have often times created a competition both ruinous to themselves and to those whose operations have hitherto been profitable. This situation may well require regulation. But the characteristics which explain the regulation of railroads and other utilities are largely absent in the field of motor transportation and the starting point in regulating motor carriers is not the need for protecting public against monopoly.

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1. Peterson, G. Shorey, "Motor-Carrier Regulation and Its Economic Basis," Quarterly Journal of Economics, vol. 43, No. 4, August, 1929, pp. 608-09.

2. "Motor Bus and Motor Truck Operation," 140 I.C.C. 685, 750.

What is the new theory of motor-carrier regulation? A generally advanced reason for regulating motor carriers is to protect the public against irresponsible common carriers on the highways. Such carriers may place misleading advertisement of the service to be performed, may sell roundtrip tickets and fail to make the return trip, and may be incapable to indemnify claimants in case of accidents resulting in personal injuries and property losses.[3] Regulation to supervise routings, schedules, and rates and require the recipient of certificate to show financial ability is justified in order to secure adequate, safe, and proper service to the public.

Regulation of this type is not new. It is designed merely to eliminate the abuses of irresponsible operations. No new theory of regulation could be derived from it.

Apart from the motive of protecting the public, motor-carrier regulation is designed to restrict competition as a measure to protect established carriers, including both motor carriers and rail carriers. To restrict entrance to the field through the certificate of public convenience and necessity, legislative laws provide that no operation should be permitted until the applicant for certificate has demonstrated the public convenience and necessity. The state of Maine has condemned motor competition with rail lines seeking post-war economic readjustment.[4] New Hampshire refuses to issue certificate to another when the service of one carrier is considered sufficient.[5] The policy of Ohio does not aim at unrestricted competition between motor carriers but sees that public service is kept adequate to public needs. Additional service is not authorized unless the existing service proves insufficient. Even so, the existent carrier is given a period of 60 days to improve his

3. "Motor Bus and Motor Truck Operation," 140 I.C.C. 685, 702.
4. Re Maine Motor Coaches, P. U. R. 1926 B, 545.
5. Re Carpenter, P. U. R., 1925 C. 288.

service.[6] The Supreme Court of Illinois has held the opinion that the proposed lower rates of bus are insufficient grounds for granting a certificate to compete with a rail line, whose revenue decreasing from such competitive certificate would necessitate an increase in rates.[7]

The tendency as revealed in these commission and court decisions to check competition between motor and rail transportation constitutes the central feature of motor-carrier regulation which alone places it on the plane occupied by the control of other public utilities. "From one of these angles motor transportation is envisaged as an important industry in its own right, whose most advantageous development may require at one point or another a deft touch of the hand of public control; such interference, however, being governed by the characteristics of the industry itself and the interest of the public in good motor-transport service at low cost. From the other of these angles motor transportation appears as a late and somewhat obstreperous arrival in the transportation family, whose chief claim to recognition is that it threatens to some extent the position of steam and electric rail operation and which accordingly must be regulated, not because it has the features of public service itself, but because it competes with an industry whose nature rebels against the presence of competition. Seldom in discussions of motor-transport control are both of these points of view clearly and frankly recognized."[8]

The History of State Regulation—The power to regulate intrastate transportation by motor vehicle common carriers

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6. General Code, 614-91 Scioto Valley Railway and Power Company v. Public Utilities Commission of Ohio, (Supreme Court of Ohio) 154 N. E. 320.

7. S. M. Bus Co. v. C. M. Bus Co., 150 N. E. 668 (1926).

8. Peterson, G. Shorey, sup. cit., Quarterly Journal of Economics, vol. 43, No. 4, August, 1929, p. 625.

rests with the state, except where state legislatures grant power to incorporate municipalities to require motor vehicle common carriers to obtain permission for operation from the local body.[9] This is the case in Massachussetts, where the Board of Selectmen of the City Council exercises control over motor vehicle common carriers engaged in transporting passengers.[10]

Prior to 1914, the state motor vehicle laws did not differentiate between common carrier and other classes of motor vehicles. In 1914, Pennsylvania took the lead in placing common carrier motor vehicles under the regulation of the State's Public Service Commission.[11] Six other states followed suit before the World War with Colorado, Wisconsin, and New York in 1915; Maryland in 1916; Utah and California in 1917. After the War, four states undertook regulation in 1919;[12] seven in 1921;[13] Rhode Island in 1922; six in 1923;[14] Kentucky in 1924; ten states in 1925;[15] and three in 1926.[16] At the end of 1931, all of the states and the District of Columbia, excepting Delaware, have laws regulating the operation of motor vehicles as common carriers of passengers. Thirty nine States and the District of Columbia have laws regulating the operation of common

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9. Motor Vehicle Conference Committee, "State Regulation of Motor Vehicle Common Carrier Business," 1929 edition.

10. Fenner, D. C., "Regulation of Motor Vehicle Common Carriers," Electric Railway Journal, vol. 61, No. 5, February 3, 1923, p. 208.

11. Motor Vehicle Conference Committee, sup. cit.

12. Arizona, Massachusetts, New Hampshire and Vermount.

13. Connecticut, Illinois, Maine, Ohio, New Jersey, Washington, and West Virginia.

14. Iowa, Michigan, Montana, Nevada, Oklahoma and Virginia.

15. Idaho, Indiana, Kansas, Minnesota, North Carolina, North Dakota, Oregon, South Carolina, South Dakota, and Wyoming.

16. Arkansas, Louisiana and Mississippi.

carriers of property, and thirty four states have enacted laws dealing with the operation of contract carriers.[17]

The Scope of State Regulation—Certain classes of motor carrier are exempted from state regulation, among which are vehicles hauling agricultural products, sightseeing and hotel busses, taxicabs, and school busses.

Haulers of farm products are exempted from regulation, notably in some of the western states and also in some of the southern states.[18] The state of Oregon has authorized the public service commission to exempt from regulation the transportation of freight or passengers by motor vehicles in rural communities not done on a commercial basis and not done for the general public.[19] The Minnesota and Washington laws exempt haulers of agricultural, horticultural, and dairy products exclusively, operating between farm and primary market.[20] The Supreme Court of California has declared the legislation[21] exempting motor carriers engaged in the transportation of farm products or implements unconstitutional on the ground that it gave farm haulers a privileged position not enjoyed by haulers of other commodities. The court held that there existed "no natural intrinsic, or constitutional grounds" for such grouping. Therefore, such classification was arbitrary

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17. 182 2.C.C. 371

18. Among the western states are; California, Washington, Minnesoata, Oregon, and Kansas. Among the southern states are; North Carolina, South Carolina, and Virginia.

19. General Laws of Oregon, 1925, Ch. 380, Section 13.

20. Minnesota Laws, 1925, Ch. 185, Section 2 (f). Washington Compiled Statutes (Remington), Sect. 6387 (d), 1922.

21. The provision of chapter 310 of the Statutes of 1923, purporting to amend section 5 of the Auto and Transportation Act of 1917.

and the court ordered the Railroad Commission to assume jurisdiction over them.[22]

By their local nature of service, hotel busses usually and taxicabs sometimes are exempt from state commission regulation. For example, the Minnesota law provides that the term "motor vehicle" shall not include any transportation company engaged in operating taxicabs, or hotel busses to or from a depot to a hotel.[23] The New York Public Service Commission has held that a sightseeing bus is not a common carrier within the usual acceptance of the term and should not be treated as such unless the statute clearly requires. Furthermore, the Commission was of the opinion that the operation of a sightseeing automobile making a trip a day between two cities, visiting points of interest, is not the operation of a "bus line" or "stage route" over which the Commission has jurisdiction.[24]

A different ruling was handed down by the Public Service Commission of Pennsylvania to the effect that the transportation of passengers from a fixed point of origin to various places in the state and adjoining state for sightseeing is a public service with all characteristics of common carriers and is subject to Commission regulation. The Commission has further expressed the opinion that the regulation of the sightseeing bus is necessary to protect the existing carriers against undue competition.[25]

> With the present popularity of motor transportation and the improvement of the public highways of the state, there has grown a public demand for the use of these busses on sight-seeing, excursion and special tours. Much of the scenic beauty of this Commonwealth is visible only from the highways.

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22. Franchise Motor Freight Association vs. Railroad Commission of California, 196 California Report 77, 1925. (Whiting edition).
23. Minnesota Laws, 1925, Ch. 185, Section 2, (f).
24. Re International Railway Company, P. U. R. 1919 F 63.
25. Re Alvin R. Bush et al., P. U. R. 1925 C, 1.

> Many points of historic interest are not located on the lines of the rail carriers or conveniently served by such carriers. It is reasonable to suppose, under the state's policy of improving highways, that there will be a tremendous growth in the use of auto-busses for excursion and recreation purposes. In considering these applications for this special class of service, care must be taken to prevent unnecessary competition with the existing carriers. Street railway companies and railroad corporations have, at great expense, developed parks and places of amusement along their lines. It would be contrary to the best interests of the public to permit motor carriers to operate to such parks or places of amusement.

In addition to the above several classes, motor carriers operating exclusively within the corporate limits of a city or town are usually exempted from regulation. Many states have exempted the school bus on account of its very nature of employment. A school bus is the vehicle that transports bona fide pupils to and from school, but a contract between a board of school trustees and a motor vehicle operator to carry school teachers between designated points does not make the motor vehicle operation immune from regulation.[26]

Among the motor carriers which are subject to regulation, the most important class is the common carrier. All commissions have jurisdiction over this class of carrier although the commissions can only exercise such regulatory power as defined in the state statutes.

A common carrier is usually defined as "those individuals, companies, or corporations engaged in the operation of motor vehicles carrying passengers or property or both over the public highways for hire between fixed termini or over regular routes are common carriers and subject to the jurisdiction of the commission."[27]

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26. Re Matt Kuchan, P. U. R. 1925 B, 541 (Decision of Montana Board of Railroad Commissioners.)

27. George, John J. "Motor Carrier Regulation in The United States," 1929, p. 41.

An interesting point on hand is what transforms a private carrier into a common carrier. It is needless to say that a private carrier who applies for and receives a certificate of public convenience and necessity would convert himself into a common carrier. The Illinois Supreme Court held that "a person who operates a taxicab over a hard road for hire and indiscriminately accepts passengers and discharges them at all points along a regular route in competition with, and at the same price charged by a person operating a motor bus under a certificate of the Commission is engaged in the operation of a public utility under the Illinois statutes."[28]

Can a state law compel carriers who do not hold themselves out to the public at large to assume peculiar duties and liabilities of the common carrier? On this point, state courts do not agree. The Supreme Court of Utah and of Ohio, for instance, declared these laws invalid and held that a state has no power to convert, by mere legislative fiat, a private business into a public utility. A private and a public carrier are to be distinguished on accepted legal principles which the state can not change, and the distinction persists in spite of the declaration of a legislative body.[29] On the other hand, there is a group of state courts which defend the right of a state to bring private carriers under regulation.

The legal status of a private carrier for hire was finally made clear by the United States Supreme Court in the Michigan Public Utilities Commission v. Duke case.[30] An Act of the State of Michigan provided: (1) "Any and all

28. Austin Brothers Transfer Company v. Henry Bloom, P. U. R. 1925 D, 363.

29. State v. Nelson, 238 Pacific 237, 1925; Hissen v. Guran, 146 N. E., 808, 1925.

30. Michigan Public Utilities Commission et al. v. Duke, 266 U. S. 573.

persons engaged in transportation of persons or property by motor vehicle for hire, upon or over the public highways of this state shall be common carriers, and so far as applicable, all laws of this state now in force or hereafter enacted, regulating transportation by other common carriers, including regulation of rates, shall apply with equal force and effect to such common carriers by motor vehicle: (2) "Any and all common carriers under this act shall carry insurance for the protection of the property carried by them, in such amount as shall be ordered by said commission, or shall furnish an indemnity bond conditoned upon the payment of all just claims and liabilities resulting from injury to property carried by such carrier, and in a company authorized to do business in this state, in the amount to be fixed and approved by said commission."[31] The Michigan Public Utilities Commission, in the enforcement of this Act, had ordered Duke, a contract carrier, to obtain the required permits. Duke therefore sought an injunction from the court to restrain the commission from enforcing the order. Justice Butler voiced the opinion of the United States Supreme Court:

> Plaintiff is a private carrier. His sole business is interstate commerce, and it is limited to the transportation covered by his three contracts. He has no power of eminent domain or franchise under the State, and no greater right to use the highways than any other member of the body public. He does not undertake to carry for the public and does not devote his property to any public use. He has done nothing to give rise to a duty to carry for others. The public is not dependent on him or the use of his property for service, and has no right to call on him for transportation. The act leaves it to the commission to require plaintiff, if he is to use the highways, to be prepared to furnish adequate service to the public. It would make him a common carrier and subject him to all the duties and burdens of that calling and would require him to furnish bond for the protection of those for whom he hauls.

31. The Michigan Public Utility Act of 1923.

> Moreover, it is beyond the power of the State by legislative fiat to convert property used exclusively in the business of a private carrier into public utility, or to make the owner a public carrier, for that would be taking private property for public use without just compensation, which no State can do consistently with the due process of law clause of the Fourteenth Amendment.

This decision has presented many commissions with a difficult regulatory problem. If the many private contract carriers are left free from regulaiton, it is obvious that the regulation of common carriers will be made ineffective and their economic situation rendered more precarious. Therefore, it is not surprising to find few state commissions insisting upon regulating such contract carriers, not only before but since the Duke decision.

The case of Frost v. the Railroad Commission of California involved the validity of the California law[32] which brought under the regulative control of the Commission automotive carriers of persons or property operating under private contracts of carriage. It provided that no such transportation company shall operate for compensation over the highways without first having secured from the Commission a certificate of public convenience and necessity. The complainant was a truck line engaged under single contract in transporting, for stipulated compensation, citrous fruit over the public highways between fixed termini. The Commission held that this truck line was subject to the provision of the act and directed it to suspend its operations unless it secured a certificate. The State Supreme Court, in upholding the Commission's order, said that by the Auto Stage and Truck Transportation Act the state offers the special privilege of using the public

32. California Statutes, 1919, c. 280, p. 457.

highways for the transaction of private business, a privilege to which no one is entitled as of right; but the offer is rather conditional so that the offeree shall return a consideration therefore by dedicating his property to the quasi-public use of public transportation, or, at least, by submitting himself to the conditions, regulations, and restrictions specified in the act. The offeree is not compelled to submit himself to those conditions, but if he does not, he is not entitled to the privilege offered. If he does avail himself of the offered privilge he must be deemed to have accepted the conditions of the offer. The United States Supreme court reversed this decision and held that the state, granting it might impose reasonable conditions upon those who desired to use its roads, could not impose such conditions as to require the relinquishment of constitutional rights. Therefore, the state could not require an individual to assume the responsibilities of a common carrier as the price of the privilege of doing business upon the highway, for this would take property without due process of law. Furthermore, the bargain is not a free one. It is true that the California Act here is an offer to the private carrier of a privilege, which the state may grant or deny, upon a condition, which the carrier is free to accept or reject. "In reality, the carrier is given no choice, except a choice between the rock and the whirlpool —an option to forgo a privilege which may be vital to his livelihood or submit to a requirement which may constitute an intolerable burden."[33]

A recent decision of the United States District Court for Southern District of Texas is particularly interesting as it approaches the same question from an entirely

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33. Frost Trucking Company v. Railroad Commission of California, 271 U. S. 583, 513.

different legal point of view. A Texas law has declared as its policy in regulating motor carriers:[34]

> The business of operating as a motor carrier of property for hire along the highways of the state is declared to be a business affected with the public interest. The rapid increase of motor carrier traffic, and the fact that under existing law many motor trucks are not effectively regulated, have increased the dangers and hazards on public highways and make it imperative that more stringent regulation should be employed to the end that the highways may be rendered safer for the use of the general public; that the wear of such highways may be reduced; that discrimination in rates charged may be eliminated; that congestion of traffic on the highways may be minimized; that the use of the highways for the transportation of property for hire may be restricted to the extent required by the necessity of the general public, and that the various transportation agencies of the state may be adjusted and correlated so that public highways may serve the best interest of the general public.

In upholding the state law, the District Court held that a contract carrier enjoys his status not as right but as a privilege. "It is too much to say that when a state undertakes to impose upon him conditions different from those characterizing him at common law his privilege flowers under the Fourteenth Amendment into a right which the state may not impair."[35] A state, therefore, may establish a correlated system for regulating motor transportation which includes the control and regulation of private contract carriers as well as common carriers. The court said in part:[11]

> We think it perfectly plain that the statute under construction here is wholly different, not only from the statutes

34. Texas Law, Section 33 b.

35. "Regulation of Contract Motor Carrier Upheld," Railway Age, News Section, Vol. 91, December 12, 1931, p. 912; 53 F. (2) 509.

discussed in the Frost and Cahoon cases, but from any heretofore brought under review.

This statute approaches the matter of regulation from an entirely different angle; it asserts the power of the state in an entirely different way. It presents with crystal clearness the point whether the state must choose between the alternatives of excluding private carriers altogether from its roads, or of permitting them to use the roads in the conduct of the kind of business which the state has declared must be conducted thereon.

Here is no case of compelling private carriers to become common carriers; no case of granting a right and therefore arbitarily or illegally conditioning that right. Here is a case of a clear, a simple, a complete declaration of policy that the public has an interest in the business of carriage for hire over the highways of the state, a prohibition of the right to engage in such business except under a franchise, and an affixing to the enjoyment of franchise the condition that the holder must become an integral part of the transportation system of the state, and must submit to the regulations applicable to his franchise as to rates and practices.

It is doubtful, however, whether the legislative declaration of purpose and policy alone can sustain the validity of a state statute.

Regulatory Powers of State Commissions—We now turn to the regulatory powers vested in the state commissions. With few exceptions, the powers wielded by the public service commissions or similar forms of state agencies are numerous and broad. Much variation is found, but the general powers that appear in a great number of states are as follows:[36]

1. Power to grant, refuse to grant, amend or revoke certificates of public convenience and necessity.

2. Power to prescribe routes.

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36. Motor Vehicle Conference Committee, "State Regulation of Motor Vehicle Common Carrier Business," 1929.

3. Power to fix operating schedules.

4. Power to fix rates on commercial products.

5. Power over rates and charges, either to fix or to approve those proposed by the carrier.

6. Power to determine the character of service, and promote the comfort and safety of the traveling public.

7. Power to require report sand uniform accounting.

8. Power to examine accounts and records.

9. Power to supervise fiscal affairs such as incorporation, capitalization of stock, sale and lease of lines, etc.

10. Power to compel additions to, extensions of, or betterments in physical equipment.

Among the less usual powers granted the commissions by legislative provisions are:[37]

1. Power to supervise contracts.

2. Powers to regulate the relations between the carrier and the public.

3. Power to require waiting rooms and other conveniences to be established for the comfort of the traveling public.

4. Power to investigate into carrier conduct.

5. Power to prevent discrimination.

6. Power to act as arbitrator.

It is apparent that these powers are general and inclusive. Under the grant "to supervise and regulate," commissions have promptly set up a body of rules and regulations ancillary to the powers specifically granted.

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37. Ibid.

The State Regulatory Agency—Although Considerable variety appears in the type of state regulatory agencies, they may be generally grouped into state railroad commissions, public utilities or public service commissions, corporation commissions, motor commission, and the state administrative departments.[38]

The regulatory agency is administrative as well as quasi-legislative and quasi-judicial. It is not infrequent that the quasi-judicial functions overshadow the purely administrative work.

Certificates of Public Convenience and Necessity.—A certificate of public convenience and necessity is required in nearly three-fourths of the states in the United States. Generally speaking, all motor carriers subject to the regulation should secure certificates, and the commission is empowered to issue such certificates if the public convenience and necessity warrant. In a few states, however, a distinction is made between carriers operating over regular routes or between fixed termini and irregular operators.[39] Certificates are prerequisite of operation of common carrier service while irregular operators are

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38. Alabama, Indiana, Kansas. Louisiana, Maryland, Missouri, Nevada, New Hampshire, New York, Oregon, Pennsylvania, Vermont, and Wyoming have public service commissions; Arkansas, California, Mississippi, Montana, South Carolina, Texas, Wisconsin, Nebraska, and Minnesota have railroad commissions; Arizona, North Carolina, and Oklahoma have corporation commissions; Kentucky has the commission on motor transportation and West Virginia has the state road commission; Washington has the department of public works and Idaho, the department of law enforcement; Colorado, Connecticut, Maine, Michigan, Ohio, Rhode Island, Utah, and the District of Columbia have public utilities commissions.

39. Arkansas, North Dakota, and South Dakota.

granted a permit, as a matter of right, if they fall within the general legislative classification.[40]

Certificate procedure.—The procedure to obtain a certificate of public convenience and necessity begins with the filing of an application with the public service commission, the typical requirements of which are shown below:

1. The name and address of the petitioner.

2. The name and address of the attorney of the petitioner.

3. The powers, rights, franchises, and privileges of the petitioner under ordinances, municipal contracts and other authorization.

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40. The permit is in the nature of a license, allowing the holder to do what would otherwise be unlawful. It is merely a privilege and not a property right nor a contract between the state and the holder as to the terms of operation. It may be revoked at will, and without a hearing. (See La Plante v. State Board of Public Roads, 131 Atlantic 641, Supreme Court of Rhode Island, Jan. 15, 1926).

A certificate, on the other hand, is in the nature of a limited franchise and protects the grantee against interference by others unless authorized by the commission. (See Public Utilities Commission of Utah v. Garviloch, 181 Pacific 272, Supreme Court of Utah, 1919).

There is considerable legal doubt as to whether a certificate possesses cash value, and, therefore, can be regarded as a property right. Lilienthal and Rosenbaum took the view that they do (See their article. "Motor Carriers and the State" In the Journal of Land and Public Utility Economics, Vol. 2, No. 3. July, 1926, p. 268). But the Supreme Court of Ohio had held that the recipient of a certificate acquires no property right (Penn. R. R. v. Pub. Utils. Com. 155 N. E. 694). The Supreme Court of Massachusetts had confirmed this view. (See Roberto v. Com's'rs. of Jub. Utils., 160 N. E. 621). John J. George concluded: "Taking the country as a whole, the certificates more resemble licenses than franchise." (See his book "Motor Carrier Regulation in the United States," p. 58).

4. The style, manufacturer, maker's number, capacity and state motor vehicle license of each motor vehicle owned by the petitioner which he wishes to operate in the public service.

5. A complete statement of the petitioner's financial ability to furnish adequate public service.

6. The nature and character of the service to be rendered.

7. The persons, partnership or corporation furnishing or having the right to furnish similar service; including steam railroads, electric railways, express companies and other motor operators.

8. A statement of the service proposed to be rendered is necessary and proper for the service, accommodation and convenience of the public.

9. A statement that the petitioner proposes to begin furnishing service immediately upon the receipt of the certificate of public convenience and necessity.[41]

Applications are executed before notaries public and two copies are filed with the Public Service Commission. A filing fee of $5.00 per application must accompany the application.

A few states require that the application must be accompanied with the evidence of consent of the municipalities through which the proposed route passes.[42]

The next step of the procedure is to serve notice of the date of hearing on the application. Usually the public service commissions serve the notices although in North Carolina and Ohio, and in other state notice must be

41. The Public Service Commission of the Commonwealth of Pennsylvania, General Order No. 18.

42. New York, Laws of, Ch. 762, approved May 4, 1926, sect. 66; New Jersey, Laws of 1926, ch. 144, sect. 2.

secured by the applicants.[43] The notice of hearings may be served by mail, personal notice, or through the newspaper.

At these hearings, opposition to the issue of a certificate may come from rail carriers, or from established highway carriers operating under certificates on the ground that there is not sufficient business to warrant the establishment of a new motor line. Where there are several contestants for a certificate over the same route, financial responsibility and operating experience of the applicants are important considerations in determining which one of them should be granted a certificate.[44]

In several states, the commissions are given authority to modify or limit the conditions of operation in the certificate. The Ohio Public Utilities Commission can issue a certificate for only a part of the route sought.[45] This same power is exercised by the Indiana Public Service Commission.[46] The California Railroad Commission has issued certificates limiting the transportation to petroleum and its products, automobile tires and accessories.[47] It has even been held valid to restrict one operator's taking up and discharging passengers over part of the route certified while not imposing such restrictions on the other carrier on the same route.[48] The Colorado Public Utilities

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43. North Carolina, Bus Regulation Law, 1925, sec. 3; Ohio, General Code, sec. 614-91; Public Utilities Com. Rules and Regulations, Rule. 6.

44. Trumbower, Henry R., "The Regulation of the Common Carrier Motor Vehicle with Respect to Its Competitive Aspects," American Economic Review, Vol. 19, No. 1, Supplement, March, 1929, p. 232.

45. Erie Ry. Co. v. Public Utilities Commission (Ohio Supreme Court), 157 N. E. 382.

46. Re Indianapolis St. Rv. Co., Decision 621-M, April 23, 1926.

47. Re Kidd, P. U. R., 1925 C, 414.

48. Motor Transport Co. v. Bd. of Pub. Utils., P. U. R., 19-28 D, 292, Decided February 21, 1928.

commission has been given unusual power to issue trial certificates for a specified period to be stated in the certificate. The certificate dies automatically with the expiration of the period specified without positive action on the part of the Commission. The Commission thus has an opportunity to decide whether the proposed service is justified by the public convenience and necessity or not.

The statutes of several states provide for transfer or assignment of certificates with the approval of the respective commissions, which will investigate carefully the financial ability of the transferees and their willingness to furnish adequate service.

A usual commission power is the revocation of a certificate. Statutes usually provide for appeal and review on the commission decision revoking the certificate. The causes for revoking a certificate are errors in procedure; failure to provide liability protection; false statement in affidavits; failure to establish the service authorized within the period allowed, and failure to furnish proper service either in amount or frequency; violation of safety requirements; failure to secure commission approval of equipment leases; failure to observe certificate conditions as to passengers carried or goods transported; rebates; suspension or abandonments of service; failure to have drivers licenses, and failure to pay taxes due.[49]

Factors in Granting Certificate.—There are two groups of applicants for the certificate of public convenience and necessity which the public service commissions have to deal separately. The first group is consisted of motor carriers in bona fide operation on the date the regulatory act becomes effective. In recognition of the vested interests, many states have provided by statute that they

49. George, John J., Sup. cit., p. 172.

should be granted a certificate as a matter of right.[50] The applicant is required only to show on affidavit the route over which he is operating and physical property owned, and to show that he is operating in good faith on effective date. Bona fide operation on effective date is prima facie evidence that public convenience demands the service.[51]

What constitutes "good faith operation"? On this subject, the definition given by the Washington Department of Public Works may be cited.[52] "To constitute good faith operation, it is not necessary that the service should be perfect in every detail. We believe that if a stage company was conducting its business in the manner that stage companies at that time were accustomed to operate, rendering such a schedule as would reasonably meet the requirements of the travelling public at the time and place in question, the operation was in good faith."

It is with the second group of applicants who seek a certificate to begin service after the regulatory act has become effective that much of the difficulty of the commission's work lies.

What are the factors to be considered by the commissions in granting or refusing a certificate to the applicant? Obviously the only guiding principle for such decision is a vague, indefinite, uncertain phrase 'public convenience and necessity." Just what elements are included in this phrase have never been set forth in a comprehensive manner. We shall first consider the meaning of the phrase.

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50. For example, California, Minnesota, Indiana, Mississippi, Louisiana, Nevada, Ohio, Oregon, South Carolina, South Dakota, Texas, Washington and Iowa.

51. Re Purple Swan Safety Coach Lines, P. U. R., 1928 A, 193

52. Re Barker Motor Bus Company, P. U. R., 1921 E, 836.

The first word of the pharse "public" was constructed to mean the majority of the public rather than the few who might be convenienced by the inauguration of a proposed motor service.[52] The public does not mean everybody all the time.[54] The service may affect "so considerable a fraction of the public that it is public in the same sense in which any other may be called so.[55] Thus the word "public" means the majority of the people concerned.

From the views exhibited by courts and commissions "necessity" does not mean indispensable in the dictionary sense. The Illinois Supreme Court held that "When the statute requires a certificate of public convenience and necessity as a prerequisite to the construction or extension of any public utility, the word 'necessity' is not used in its lexicogrephical sense of 'indispensably requisite.' If it were, no certificate of public convenience and necessity could ever be granted. The first telephone was not a public necessity under such a definition, nor was the first electric light. Even the construction of a water works system in a village is seldom necessary though highly desirable. However, any improvement which is highly important to the public convenience and desirable for the public welfare may be regarded as necessary. If it is of sufficient importance to warrant the expense of making it, it is a public necessity."[56] The Rhode Island Supreme Court was of the opinion that a commission in granting a certificate must be convinced that the proposed service will

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53. Trumbower, Henry R., sup. cit., The American Economic Review, Vol. 19, No. 1, supplement, March, 1929, p. 234.

54. Peck v. Tribune Co. 214 U. S., 185, 190.

55. German Alliance Inc. Co. v. Kansas, 233 U. S. 389.

56. The Wabash, C. and W. RR. Co. V. The Commerce Commission, 309 Ill. 412; See also Seaboard Air Line R. Co. v. Wells (Fla. Sup. ct.) P. U. R., 1931 A, 433.

accommodate the public and that a reasonable demand exists.[57]

The word "convenience" is not to be considered separately from the phrase "convenience and necessity" held the New York Public Service Commission.[58] "If an enterprise is necessary it is certainly convenient, so that if it be required that a general necessity be established the word 'convenience' would be superfluous." It is "not as an additional requirement but to modify what might otherwise be taken as the significance of necessity." The Commissioner of the North Dakota Commission stated: ".....In considering the terms 'convenience and necessity' we are of the opinion that they cannot be separated and the word 'necessity' be given a strict construction. Strictly speaking, the electric car line is not a public necessity. People walked or rode in horse-drawn vehicles before electric cars were known. They could do so again if required. Had a regulatory commission been in existence from which the street car lines were required to obtain a certificate of convenience and necessity, it should have been denied because people could ride in horse-drawn stages. It was not the intent of the law to stop all progress by denying opportunities to new forms of transportation, merely for the purpose of illustration. The phrase 'convenience and necessity' as used in the law is not to be split in two."[59]

On the other hand, the mere proof that a proposed service such as door-to-door delivery motor freight service is more convenient to the public than existing railroad facilities is insufficient to warrant of itself a finding of public convenience and necessity, according to the Montana Commission. It held that the Board is not authorized to

57. Abbott v. Public Utilities Commission, 136 Atlantic 490.
58. Re Try Auto. Car Company, Inc. P. U. R., 1917 A, 700.
59. Re Shall Transportation Co. Case, P. U. R. 1930 B, 302.

issue a permit for motor operation unless there is a concurrence of public convenience and necessity, and that a failure to establish either element requires a dismissal of the proceeding.[60]

Proof of greater convenience to shippers falls short of proving the existence of the element of reasonable public necessity which must exist before a certificate will be granted for proposed motor service in the face of the existing service, according to the same commission.[61]

For practical application, the commissions have to establish a more concrete standard of public convenience and necessity. The examination of commission decisions discloses several elements which are considered to justify the granting of a certificate.

The absence of transportation facilities clearly justifies the commission to authorize motor carrier service. The Public Utilities Commission of Colorado has issued a certificate of public convenience and necessity to a carrier proposing to serve a newly built community which was in lack of transportation service.[62] Where railway service has been abandoned between two towns, public convenience and necessity demanded the authorization of highway service.[63] Furnishing cross-country service and supplying connections to railways are also evidence of public convenience and necessity.[64]

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60. Re Butte-Dillon Freight Service, Docket M. R. C. 575, Report and Order No. 1562, Feb. 10, 1930, P. U. R., 1930 B. 320.

61. Re D. V. Paddock and Frank H. Tyrs., P. U. R., 1931 D, 35.

62. Re The Denver and South Plate Transportation Co., Decision 976 (Colorado Pub. Utils. Com.) May 7, 1926.

63. C. C. Heck, et al., Decision 978 (Colorado Pub. Utils. Com.) May 13, 1925.

64. Re Heaton (South Dakota), Order 878, June 9, 1926.

Inadequacy of existing service is another justifiable ground for granting a certificate of public convenience and necessity. When a railway schedule did not adequately serve the intermediate small towns, the Illinois Commission would issue a certificate to motor carrier proposing to serve them.[65] While there was adequate rail facilities to meet the demand for transportation, a competitive motor service was nevertheles authorized when the rail facilities were not exercised to the degree of efficiency demanded by the public.[66] The Illinois Commission has also allowed street railways to operate motor service in view of the insufficient facilities for transporting passengers between Normal and Bloominton and the desire for transfers between the lines.[67] The same commission has issued competing certificates where the applicants could prove that the public would be greatly convenienced thereby.[68] The Florida Railroad Commission grants certificate of public convenience and necessity only when the existing certificate holder or holders serving such territory fail to provide service and facilities to the satisfaction of the Commission.[69]

The financial ability of the applicant is an element of consideration in granting a certificate. In deciding between rival applicants for certificates of convenience and necessity, the Pennsylvania Public Utilities Commission

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65. Re Cannon Ball Coach Line, Decision 14589, December 8, 1926.

66. Re T. R. Rex (Calif.) P. U. R., 1920 B, 675.

67. Illinois Power and Light Corporation (Ill. Com. Com.), Decision 14936, May 26, 1926.

68. Re Farimas Bus Line and Transportation Co., P. U. R., 1922 B, 803.

69. Florida Motor Lines, Inc. v. State Railroad Com. P. U. R., 1931 C, 510.

considers, among other things, whether one or more applicants showed evidence of superior financial ability.[70] Satisfactory financial resources of railway companies, who by decades of experience adequately serve the public, are preferred in the receiving of a certificate for motor service in the state of Iowa.[71] To be financially able to provide such transportation service as the public shall require has been the reason for the granting of a certificate by the Colorado Commission.[72]

If there is a sufficient volume of business to support both the established motor carriers and the proposed motor service, a certificate will usually be granted. The Arizona Corporation Commission contended that a bus or truck line, using the highways built by the taxpayers and operating for profit, should not be allowed to enjoy the privilege of monopoly and be protected from legitimate competition when sufficient business is shown to exist for more than one operator and the convenience and necessity of communities served demand a competing line.[73]

In order to place two rival communities on an equal footing in the matter of transportation service, the Montana Commission granted authority for motor freight service between the communities.[74]

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70. Pennsylvania R. Co. v. Utilities Commission, 176 N. E. 573, May 20, 1931.

71. Re Fort Dodge, Des Moins and Southern Transportation Co., P. U. R., 1926 C, 19.

72. Re Rocky Mountain Parks Transportation Co. P. U. R., 1927 C, 398.

73. Re Grady Harrison's Freight Service (Arizona), P. U. R. 1931 D, 24.

74. Re Building Sheridan Motor Freight Line (Montana), P. U. R.

The grounds on which commissions have refused to issue certificates as contrary to public convenience and necessity are equally interesting.

Lack of public demand for service or adequacy of the existing service is a very important reason for denial of certificate. In Re Frurip Bus Line Case, evidence was introduced to show that the cities and towns on the proposed motor routes were provided with every transportation facility. The Indiana Commission reached the conclusion, therefore that no necessity existed for the operation of additional motor vehicle common carrier service.[75] In refusing permission to operate an automobile line, the Utah Commission said that there was insufficient business to warrant the establishment of an automobile passenger and express line.[76]

A few commissions have taken into consideration the element of futurity.[77] An unmistakable principles has been laid down by the authorities of the State of Washington to this effect: "The Commerce Commission has a right to, and should, look to the future as well as to the present situation. Public utilities are expected to provide for the public necessities, not only today, but to anticipate for all future developments reasonably to be foreseen. The necessity to be provided for is not only the existing urgent need, but the need to be expected from the development of the community, the growth of the industry, the increase in wealth and population, and all elements to be expected in the progress of a community."[78]

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75. Re Frurip Bus Line (Ind.) P. U. R. 1927 C, 398-99.

76. Re Merchant, P. U. R., 1927 C. 399-400.

77. Arizona, See Re Phoenix Motor Coach, P. U. R., 1925 E, 344; Wyoming, See Salt Creek Transportation Co. v. Apger, P. U. R., 1926 A, 120.

78. Northern Pacific Ry. Co. et al. v. Department of Public Works (Washington), 256 Pacific, 333, May 31, 1927.

However, looking for the development of future traffic implies uncertainty and enters into speculation. Naturally some commissions would frown upon such a suggestion. For instance, when a proposed bus service is based upon future rather than a present feasibility to give proposed service, a certificate will be denied by the California Commission.[79]

Lack of financial standing of the applicant or lack of financial ability to equip and to install a reliable and dependable service does not support the contention that such proposed service would be a public convenience and necessity.[80]

Failure to comply with the statute by omitting to file a certified copy of its articles of incorporation with the secretary of state and by failing to comply with other provisions both with respect to rendering reports and payment of taxes due to the state has been cause for an application to be denied.[81]

A certificate to operate motor bus service was denied by the California Commission because of inefficient equipment, lack of ability to provide better equipment, and improper braking and servicing of vehicles, although some small need for transportation service existed.[82]

An application for a certificate of public convenience and necessity is refused where the proposed route encounters dangerous operating conditions. The Montana Commission refused to authorize the establishment of a motor bus service over an unimproved highway, which the Com-

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79. Re Hollick, (Calif.), P. U. R., 1930 B, 301.

80. Re Walker (Colo.) P. U. R., 1927 C, 397.

81. Re Motor Transportation Co. (Utah), P. U. R., 397: See also Re Davis (Mo.), P. U. R., 1929 B, 506.

82. Re Meatteauer, P. U. R., 1929 B, 505.

mission considered in adequate for highway bus travel, because they considered the highway unsuited for the safe and comfortable transportation of passengers.[83] The Commission also refused a certificate for a motor carrier service where dangerous and unpleasant road conditions made the route so unattractive that the Commission believed the public would not patronize it to the extent necessary to meet operating expenses.[84]

In the State of Washington a certificate was granted to a motor carrier notwithstanding evidence of seasonable impassibility of the roads used on the proposed route due to snowfall. The Washington Department of Public Works Stated: "The operation of stages assists in keeping the highways open where snow would otherwise obstruct them. One operator, a party to this record, has been highly successful in continuous operation in Eastern Washington despite heavy snowfall. Snow plow equipment for such operators is in practical use."[85]

Indemnity Bonds and Liability Insurance.—Most of the states now require liability insurance or indemnity bonds for common—carrier motor operation. Passenger motor operators are required to furnish liability insurance in 43 states and carriers of property in 28 states. More than 14 states require cargo insurance to be carried by motor freight lines.[86] Some states also require penal bond to guarantee the payment of fees and compliance with laws and regulations.

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83. Re Butte-Browning Bus Service, P. U. R., 1931 E, 531.

84. Re Yellow Cab and Baggage Co. (Mont.) P. U. R., 1929 B, 507.

85. Re Washington Motor Coach Co., P. U. R. 1929 B, 507.

86. I. C. C. Docket No. 23,400, sup. cit., Examiner Report, p. 111.

The amount of liability is determined primarily on the basis of the carrying capacity of the vehicle. For property carriers, $1,000 is the usual amount required, but Indiana requires $2,500 for cargo insurance and New York only $500 for property damage.

A much wider variation appears in the amount of passenger liability protection required. The states generally set a minimum figure per vehicle which is $5,000 and a maximum amount of about $20,000.

The attitude of State Commissions toward the Competition of Motor Carriers with Railroads—There is a group of commission and court decisions which hold that no obligation exists simply to protect the railroad investment, and that regulation is solely concerned with public interest in transportation. This does not necessarily mean, of course, that regulatory bodies are hostile to rail transportation. Only the rail carriers have to depend upon their economic usefulness to meet competition of new transportation facilities.

The proposition that in any decision as to the need of motor-carrier service, the already-existing transportation agencies are relevant factors has been denied by the Supreme Court of Michigan.[87] In laying emphasis on the importance of unimpeded progress in transportation, it said that in an age of evolution, one transportation agency has replaced another and unless the legislature expressed the wish in no uncertain language to the contrary, the commission need not, when determining public convenience and necessity, take into consideration the effect that the proposed motor competition would have on rail lines.

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87. Rapid Railway Company v. Michigan Public Utilities Commission, 225 Michigan Reports, 425.

The inability of a railway to maintain adequate service will not protect them from motor competition. In California, it has been held that a certificate of public convenience and necessity will be granted to an auto stage line to enter into competition with a railroad line between certain points where it is shown that the service rendered by the railroad company is unsatisfactory.[88] Even though competition will affect the railroad revenue, motor-truck operation may be authorized between points served by a railroad where the motor-truck service is more expeditious than the meager railroad service.[89] The New York Public Service Commission favors the motor carrier applicant instead of the established rail line if the latter does not exercise vigilance to make the service adequate.[90]

Are railroads entitled to an opportunity to remedy the complaint that the rail service is inadequate? In Washington, this privilege is denied. An action of the Department of Public Works granting a certificate was upheld by the Supreme Court, although the railway company were not given a special opportunity to furnish increased facilities before the competing carriers were licensed.[91] This stands in contrast with states which have adopted a policy to protect rail lines against motor competition of the rail service which can be made adequate.

In Texas, the railroads can claim no protection even on the ground that the existing rail service is adequate.[92]

Lower rates than those charged by railroads have been the reason for authorizing motor service in competition

88. Re King (Calif.) P. U. R., 1919 F, 377.

89. Re J. J. Munk (So. Dakota), P. U. R., 192 6 C, 417.

90. Re Addrich (N. Y.) P. U. R., 1923 A, 385.

91. Northern Pacific Railway Co. et al. v. Department of Public Works, 256 Pacific 333.

92. Laws of 1927, Ch. 270, Section 7.

with rail service in Arizona, although it was conceded that the railroad service was convenient and satisfactory outside of the feature of rates.[93]

There are states where the commissions and courts impose a very heavy burden of proof upon the independent motor-carrier desiring to operate in competition with existing agencies. While they do not obviously lend a sympathetic ear to the claim of the railroads that in compensation for restriction borne and speculative gains sacrificed they should be protected from unrestricted competition, the courts and commissions have been influenced in their decisions to grant or refuse a certificate of public convenience and necessity by such factors as priority of the railroads in given territory, their large property investments, the great number of people interested in rail securities, the welfare of railway employees, and the dependence of the economic life of a community upon the prosperity of the railroads.[94] The Supreme Court of Illinois has repeatedly asserted the doctrine of regulated monopoly and called attention to the sound business economy that the utility already in the field be given an opportunity to furnish the required service.

> Railroads have permanent roadbeds and trackage which require an outlay of millions of dollars and which in turn yield large revenue to the people of the state. The averge bus line is incorporated for a comparatively small sum. The railroad is of vastly greater financial responsibility. This is a matter of substantial public interest, particularly in cases of accidents. It is the established policy of the law in this state that a public utility be allowed to earn a fair return

93. Re Hatchell (Arizona), P. U. R., 1923 D, 543.

94. Re Portland Taxicab Co. et al., P. U. R., 1923 E 772; Re New York, New Haven and Hartford Railroad Co., P. U. R., 1926 B, 338.

> on its investments. It is therefore not only unjust but poor economy to grant to a much less responsible utility company the right to compete for the business of carrying passengers by paralleling its line unless it appears that the necessity can not be furnished by such railroad."[59]

In another case it said that the policy to regulate an established carrier occupying a given field and to protect it from competition may be able to serve the public more efficiently and at a more reasonable rate than would be the case to authorize other competing lines to serve the public in the same territory.[96] For one thing, the public is at least protected from paying the cost of the operation of competing systems and a return upon a double investment of capital.[97]

Sufficiency of service of rail carrier usually entitles it to protection against motor competition in these states, although commissions have shown no strong desire to protect rail lines simply because they are operating at a loss.[98] When the existing traffic could not support both the established rail carrier and the proposed motor carrier, the commissions must weigh the inconvenience to the public from the curtailment of rail service as a consequence of motor competition against the advantage of the motor service proposed.[99] The Iowa Board of Railroad Commissioners, in denying a certificate, expressed the belief that the authorization of motor service might tend to further

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95. Egyptian Transp. System, Inc. v. Louisville and N. R. C. et al., 152 N. E. 510.

96. West Suburban Transp. Co. v. Chicago & W. T. Ry. Co. 140 N. E. 56.

97. Choate et al. v. Illinois Commerce Commission, 141 N. E. 12.

98. Re Portland Taxicab Co. et al. P. U. R., 1923 E, 772; Re David E. Bell, P. U. R., 1923 E, 319 (New Hampshire).

99. Re Isaac Weiner (Maine) P. U. R., 1925 B, 357.

reduce the patronage of the railroads, causing the carriers to remove more trains, thereby inconveniencing more people than would be convenienced by the bus service.[100]

The Supreme Court of Illinois held that before a certificate is granted to a motor carrier by the Commission, the utility already in the field must be given an opportunity to furnish the required service.[101] In fact the State of Massachusetts has gone so far as to say that a railroad should not only be protected but should also be required to inaugurate highway service if public convenience and necessity should so demand.[102]

The Attitude of Courts and State Commissions toward Rail-motor Coordination.—Several interesting questions have been raised regarding railroad operation of highway service. Should railroads be favored over independent motor carriers in the application for a certificate of public convenience and necessity over a given route? Should they be permitted to inaugurate service over a route already occupied by an independent operator, when a second independent operator would be denied a certificate? The decisions of courts and commissions have generally revealed an attitude favorable to railroads. This is particularly true in New England states where the commissions have heartily encouraged the plan of coordinating highway and rail service.[103]

The preference of railroad operation of highway service to independent operators is based on several

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100. Re C. E. Rudy, P. U. R., 1925 D, 743; See also Re Fort Morgon-Brush Transp. Co., P. U. R., 1928 B, 676.

101. Egyptian Transp. System, Inc. v. Louisville & N. R. Co. et al. 152 N. E., 510.

102. Re New York, New Haven & Hartford R. R. Co. (Mass) P. U. R., 1926 B, 338.

103. "Commission Decisions Analyzed," Railway Age, Vol. 85, August 25, 1928, p. 397.

grounds. In the first place, railroads, because of their experience in the common carrier role and their financial ability to carry the enterprise through to a successful conclusion, make the most responsible and dependable operators.[104] In the second place, through unified control, great savings and full coordination of services can be achieved.[105] Finally, there is the vast railroad investment to be protected as a large number of people are railroad stockholders.[106]

Difficulties will be encountered in cases where the railroad companies are applying for certificates to operate over routes over which independent operators have already secured permits. It is often necessary for them to acquire through negotiations and purchase the rights and permits which are possessed by highway carriers.

However, application for a certificate to operate motor vehicles in competition with a motor bus operator has been granted to a railroad in Nevada. The Public Service Commission was of the opinion that an established rail carrier serving a sparsely populated territory was entitled to reduce its operating expenses where it has been suffering deficits and giving reasonably adequate service at reasonable rates.[107]

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104. Re Chicago, North Shore & Milwaukee Railroad Co. P. U. R., 1923 C 57; Re United States, P. U. R., 1925 A 700; Re Ft. Dodge, D. M. and S. Transportation Co. (Iowa) P. U. R., 1926 C 27.

105. The Utah Public Utilities Commission granted to a railroad Co. a certificate for an auto passenger and express stage line, which is supplementary to and coordinated with the rail service, and which is supplanted by the rail service in the winter when the bus service is the least desired and is hazardous; See also Re Reading Transportation Company, (Pennsylvania) P. U. R., 1927 E, 632.

106. Egyptian Transp. System, Inc. v. Louisville & N. R. Co. et al. 152 N. E. 510.

107. Re Virginia and Truckee Railway Company, (Nevada) P. U. R., 1928 C, 203.

CHAPTER IX

FEDERAL REGULATION OF MOTOR CARRIERS

State Regulation of Interstate Carriers.—With the rapid development of interstate motor bus and motor truck transportation, federal regulation of motor carriers has become an outstanding problem. In the absence of legislative act in Congress to extend the jurisdiction of the Interstate Commerce Commission to include interstate motor carriers, the question arises as to the propriety of the state authority to subject such carriers to state regulation.

Since state regulation can not be effective without regulating at the same time interstate motor carriers, it is only natural for the states to enforce their respective laws upon all vehicles as far as they are permitted to do so. In making such attempts, however, they are liable to overstep their constitutional grounds. Recent court decisions tend to indicate what phases of regulation are denied the states as well as those that are properly within their jurisdiction.

The State Cannot Deny Certificates for Interestate Operation.—Whether a common carrier which desires to engage in interstate transportation can be denied a cerificate of convenience and necessity is definitely settled in two cases.

Buck, a citizen of Washington, wished to operate an auto stage line over the pacific highway between Seattle, Washington, and Portland, Oregon, as a common carrier for hire exclusively for through interstate passengers and express. He obtained a license from Oregon, but a certificate of public convenience and necessity was refused

by the state of Washington on the ground that the territory was already adequately served by motor and steam railroad service. The United States District Court upheld the decision of the Commission, so Buck appealed to the Supreme Court. Thus the constitutionality of state laws requiring a certificate of convenience and necessity of motor transportation companies, engaged exclusively in interstate commerce, was presented for review in 1925 for the first time.

The Supreme Court, reversing the decision of the lower court, held that state regulation might be upheld, even as to interestate commerce, when its purpose was to promote safety upon the highways and conservation in their use. The indirect burden imposed upon interstate commerce was not unreasonable. But the question on hand was of a different character. The denial of the certificate was not to preserve the highways, but to prevent competition. The law did not regulate the manner of use of the highways, but the persons by whom the highways might be used. "Its effect upon such commerce is not merely to burden but to obstruct it. Such state action is forbidden by the Commerce Clause."[1]

In another decision handed down on the same day, the denial of certificate to an interstate carrier by the State of Maryland was passed upon by the Supreme Court. The Maryland statute required common carriers of merchandise and freight by motor vehicle to secure a permit from the Public Service Commission, which was charged with the duty to investigate the expediency of granting such a certificate and it was authorized to refuse the same when it deemed the granting of said permit prejudicial to the welfare and convenience of the public. The law was declared unconstitutional.[2]

1. Buck v. Kuykendall, 267 U. S. 308 (1925).

2. George W. Bush and Sons Company v. Maloy et al., 267 U. S. 317, Decided March 2, 1925.

These decisions have destroyed the administrative precedent of reasonable state regulation of interestate commerce in absence of federal legislation in so far as power to deny a certificate to an interstate carrier is concerned.

All subsequent decisions of state courts have followed the rule of the United States Supreme Court. These include the case of People v. Yahne, in which the Supreme Court of California held that the Auto Stage and Truck Transportation Act of that state, which requires transportation companies to obtain from the Railroad Commissions a certificate of public convenience and necessity as condition precedent to use of highways, was invalid when applied to carriers engaged solely in interstate commerce, being an unconstitutional invasion of field reserved by Commerce Clause.[3] The Supreme Court of Rhode Island has also decided that a certificate cannot be withheld from a carrier to engage in interestate commerce on the ground that the public is adequately served over proposed route, as a state cannot regulate competition in interstate commerce.[4]

Requirement by a State of Liability Insurance or Indemnity Bonds of Interstate carriers.—Earlier decisions of the courts generally upheld the provisions of state laws requiring interstate common carriers by motor vehicles to carry liability insurance or to give an indemnity bond for the payment of all claims resulting from injury to persons or property.[5] But the more recent decisions show a tendency to consider such requirement to be contrary to the commerce clause of the constitution. An act of Ohio to require property insurance of interstate truck

3. People v. Yahne, 235 Pacific 50 (1925).

4. Newport Electric Corporation v. Oakley, 129 Atlantic 613 (1926).

5. People v. Barbuas, 230 Ill. 560 (1923); Interstate Transit Co. v. Derr (Mont. Sup. Ct.), 228 Pacific 624 (1924).

transportation was declared invalid by the United States District Court for Ohio in 1925.[6] In the Michigan Public Utilities Commission v. Duke case discussed above, the Supreme Court of the United States considered it a burden upon interstate commerce to impose upon Duke the obligation of furnishing such indemnity bond to cover the automobile bodies hauled under his contracts as condition precedent to his right to continue to carry them in interstate commerce. It said that "Clearly, these requirements have no relation to public safety or order in the use of motor vehicles upon the highways, or to the collection of compensation for the use of highways. The police power does not extend so far."[7]

The above cases applied to interstate property carriers. An opportunity was presented in the case of Clark v. Poor to test the attitude of the Supreme Court regarding liability requirement applicable to carriers of passengers in interstate commerce.[8] However, the Ohio statute provided that the insurance requirement will be enforced only in so far as permitted by the Federal Constitution, so this feature of the case did come up for consideration. In 1928, the highest tribunal has decided that the requirement of liability insurance even as applied to buses engaged exclusively in interstate commerce is not an unreasonable burden on that commerce if limited to damages suffered within the state by persons other than the passengers.[9] The effect of this decision practically prohibits the states to exercise any control over interstate carriers of property or passengers so far as liability insurance is concerned.

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5. Red Ball Transit Co. v. Marshall, 8 Fed. (2nd). 635 (1925).
7. 266 U. S. 570 (1925).
8. Clark v. Poor 274 U. S. 554, Decided May 31, 1927).
9. Sprout v. City of South Bend, 277 U. S. 163 (1928); Compare State Board of Railroad Commissioners v. Martin 230 N. W. 540.

The necessity for requiring interestate operators to carry liability insurance need not be elaborated upon, especially when one consideres the fact that they are operating without showing public convenience and necessity and without showing of financial responsibility.

Having shown the limitations placed upon state authority to control interstate motor carriers, it is next in order to discuss the phases of regulation of interstate motor carriers which are within the power of the state.

The State Can Require Certificate of Interstate Carriers.—States are not totally powerless to control interstate carriers. In a case decided on December 1, 1925,[10] the Supreme Court of Ohio upheld the right of the Public Utilities Commission of that state to grant a permit to an interstate carrier on the ground that "Motor transportation engaged in interstate commerce is subject to all regulations which do not impose unreasonable burdens upon interstate commerce." In Clark v. Poor case discussed above, the Supreme Court of the United States held that the statute of Ohio which required a common carrier by motor to apply for and obtain a certificate or permit before operating over the highways in that state was constitutional though applied to carriers engaged exclusively in interstate commerce.[11]

The Power of A State to Deny an Interstate Carrier a Certificate to Engage in Intrastate Business—The question also arises as to the regulation of intrastate business of an interstate carrier. Decisions of state courts have generally established the principle that exemption of interstate business of an interstate carrier from state regulation does not carry with it the same right to his intrastate business. The Supreme Court of New Hampshire

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10. Cannon Ball Transp. Co. v. Public Utilities Commission of Ohio (Sup. Ct. of Ohio), 149 N. E., 713.

11. Clark v. Poor, 274 U. S. 554 (1927).

held that "even though purely intrastate carriage of passengers by an interstate carrier may be within the Commerce Clause of the Federal Constitution, such clause is not self-executing, and, in absence of federal legislation, the state may regulate intrastate business of such carrier."[12] A Massachusetts law exemepted carriage or transportation exclusively interstate from the requirement of obtaining a license. A company doing both intrastate and interstate business failed to obtain a license from a city through which the route passed. The court, interpreting the statute, ruled that the exemption was confined strictly and solely to those exclusively engaged in interstate carriage and that the statute did not permit one engaged in interstate transportation by motor vehicles of passengers also to transport passengers the beginning and end of which carriage is within the commonwealth.[13] It said further:

> One conducting interstate commerce by means of carriage of passengers by motor busses, may not, by linking with it purely local, domestic, intrastate commerce, bring the latter under full protection of interstate commerce, and deprive states of control thereof by police power.

The validity of this law was considered by the United States Supreme Court and the views expressed by the District Court were fully confirmed.[14] It said that a carrier may not evade the state law by the mere linking of its intrastate transportation to its interstate or by the unnecessary transportation of both classes by means of the same instrumentalities and employees.

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12. Haselton v. Interstate Stage Line, (N. H.) 133 Atlantic 451.

13. Barrows v. Farnum's Stage Lines, 150 N. E., 206 (1926); Compare Boston & Maine Railroad v. Gate (Mass.) 150 N. E. 210, Boston and Maine Railroad v. Hart (Mass.) 150 N. E., 212.

14. Holyoke St. Ry. Co. v. Interstate Busses Corporation, 47 Supreme Court Reporter 298, Decided Jan. 3, 1927.

It follows then from the above discussion that an interstate carrier must meet the terms of the state in regard to his intrastate business os long as these terms do not interfere with interstate commerce.

The power of the State to Enforce Reasonable Regulations upon Interstate Carriers.—Being powerless to deny a certificate to an interstate carrier by motor vehicle, how far may a state regulate such a carrier without imposing undue burden on interstate commerce? It has been pointed out by the Supreme Court that appropriate state regulations adopted primarily to promote safety upon the highways and conservation in their use are not obnoxious to the commerce clause, where the indirect burden imposed upon interstate commerce is not unreasonable.[15] In another case, it used the following language:[16]

> This court has held that, in the absence of national legislation covering the subject, a state may rightfully prescribe uniform regulations necessary for public safety and order in respect to the operation upon its highways of all motor vehicles, those moving in interstate commerce as well as others.

Such reasonable regulations wtihin the state police power may embrace routes of motor vehicles engaged in interstate commerce, number of passengers, service rendered,[17] and state orders limiting the maximum weight of motor trucks and loads on highways in the state.[18]

Even where the highways are built with federal aid, the same principle holds true. Regulation as to the method of use still remains with the state, for the maintenance after construction is primarily imposed upon the state.[19] The federal-aid legislation does not change the status of state regulation of interstate carriers; its only significance

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15. Buck v. Kuykendall, 267 U. S. 307.
16. Michigan Public Utilities Commission v. Duke, 45 Sup. Cit. 191.
17. Newport Electric Corporation v. Oakley 129 Atl. 613.
18. Morris v. Duby 274 U. S. 135.
19. Ibid.

being that it makes clear the purpose of Congress to keep state highways open to interstate commerce.[20]

State Taxation of Interstate Carriers.—A reasonable, graduated license fee imposed by a state on motor vehicles used in interstate commerce does not constitute a direct burden on interstate commerce. Moreover, a state may exact compensation for the use of special facilities furnished at its own expenses by those engaged in intrastate and interstate commerce, provided the charges are reasonable and uniform.[21] This doctrine was propounded by the Supreme Court as early as 1915:[22]

> In absence of national legislation covering the subject a State may rightfully prescribe uniform regulations necessary for public safety and order in respect to the operation upon its highways of all motor vehicles—those moving in interstate as well as others. And to this end it may require the registration of such vehicles and the licensing of their drivers, charging therefore reasonable fees graduated according to the horsepower of the engines—a practical measure of size, speed, and difficulty of control. This is but the exercise of police power uniformly recognized as belonging to the States and essential to the preservation of the health, safety and comfort of their citizens; and it does not constitute a direct and material burden on interstate commerce.

So long as the tax is not so large as to obstruct interstate commerce nor does it create discrimination, the use to which the proceeds are put is immaterial.[23]

The Need for Federal Regulation.—The situation in the field of motor transportation today is similar to that which existed in 1886 after the Wabash decision that had limited the authority of the states to control interstate commerce by rail and before the Interstate Commerce Act was enacted in Congress.

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20. Bush v. Maloy, 267 U. S. 317, 324 (1925).
21. Michigan Public Utilities Commission v. Duke, 266 U. S. 570.
22. Hendrick v. Maryland, 235 U. S. 611, decided Jan. 5, 1915.
23. Clark v. Poor, 71 Law, Ed. 1199.

In the absence of Federal regulation over interstate motor operation, it is the practice of some operators to engage in what is a purely intrastate business under the guise of interstate commerce by merely operating a few miles of route in another state and thereby claim that they are interstate operators.[24] These "wildcat" or irresponsible operators have worked considerable injury to regular and responsible bus lines. Their activities have discredited bus operations with the public and interfered with the efforts of the responsible operators to stabilize the industry. They have cut rates below what is claimed to be an economic basis and usually were forced to cease operation after a short time. Their equipment is secondhand, purchased with a small downpayment. Accidents have occurred with the operators having no liability insurance and being financially irresponsible.[25] The interstate passengers can appeal to no regulatory tribunal for protection.

Failure to establish a well-recognized division between federal and state authority has led to serious conflicts between states which have dissimilar schemes of regulation. One incident of this nature has occurred between Ohio and Indiana. The Ohio law required truckmen carrying freight from other states into Ohio to take out an Ohio permit while Indiana did not have such a requirement. Hauling into Ohio territory without certificates resulted in the wholesale arrest of Indiana truckmen. The situation grew so bad that Indiana truckmen refused to carry freight from Indiana into Ohio, but Ohio truckmen were permitted to enter Indiana without molestation. Clashes were finally avoided by conferences of utility authorities.[26]

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24. Motor Bus and Motor Operation, 140 I.C.C. 782.

25. 140 I.C.C. 702.

26. United States Congress, Senate, Hearings before the Committee of Interstate Commerce on S. 1734, 1926, pp. 42-43, Testimony by Clyde H. Jones.

The above chaotic conditions are attributable largely to the lack of regulation of interstate motor operations and to the inability of the states to regulate them satisfactorily.

Jurisdiction of the Interstate Commerce Commission over Motor Carriers under the Existing Legislation.— Section I of the Interstate Commerce Act applies to common carriers engaged in the transportation of passengers or property wholly by railroad or partly by railroad and partly by water when both are used under a common control, management, or arrangement, for a continuous carriage or shipment. The term "railroad" is defined to include bridges, car floats, lighters, and ferries used in connection with any railroad and terminal facilities of every kind used by such carriers. It is to be noted that none of the common carriers named in this act include motor vehicles.

The Commission has held that while motor truck or wagon transfer companies are not common carriers subject to the Interstate Commerce Act, truck or wagon transfer services performed in connection with terminal services of a common carrier subject to the Act or with transfer of freight in transit at an intermediate point by such common carriers are under its juristiction.

Carriers subject to the Act must publish tariffs to show charges for terminal or transfer services by motor carriers the same as charges for other service rendered as a part of their transportation service.

But the Commission holds that it has no jurisdiction over trucking service by a motor carrier which extends beyond treminal districts and becomes what is commonly known as a line-haul service. Such motor truck service is in effect operated as an extension of the lines of rail or water carriers.

Motor carriers performing a line-haul service are not a proper party to a joint tariff. Through routes and joint

rates cannot be arranged between motor carriers not subject to the Act and those carriers subject to the act.[27]

Proposed Federal Regulatory Measures.—Several bills looking to federal regulaiton have been introduced in Congress. The Cable Bill was introduced in the House of Representatives on March 3, 1925, but no action was taken by Congress. This Bill required all motor vehicles for the transportation of persons or property for compensation between fixed termini or over a regular or irregular route extending from one state of the United States to another to obtain from Interstate Commerce Commission a certificate, declaring that the public convenience and necessity require such operation.

The Commission is authorized to make all necessary rules and regulations governing the operation of motor transportation companies engaged in interstate business.[28]

The Bacharach Bill.—The Bacharach Bill was introuduced into the House on April 6, 1926, seeking the enactment of legislation to regulate interstate carriers operating over routes through the tunnel under the Hudson River between New York City and Jersey City, and over the Delaware River bridge between Philadelphia and Camden.[29] The same bill was introduced in the Senate the next day by Senator Reed of Pennsylvania.[30] No action was taken on the House bill, but the Senate Bill passed that body, only to die of neglect in the House.

In the Senate bill as passed, the State authorities named were authorized through joint or concurrent action to regulate interstate motor buses. Provision was made

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27. "Tariffs Embracing Motor-Truck or Wagon Transfer Service," 91 I.C.C., 539; see also "Jaloff v. Spokane P. & S. Ry. Co.," 152 I.C.C., 760.

28. 68 Congress, 2nd session, H. R. 12472, March 3, 1925.

29. 69 Congress, 1st Session, H. R. 11055, April 6, 1926.

30. 69 Congress, 1st Session, S. 3894, April 7, 1926.

for appeal by any party aggrieved by the action of any of the state authorities to the interstate Commerce Commission to hear and to determine the same under such rules of procedure as the Commission might prescribe.

The Cummins-Parker Bill.—The so-called Cummins-Parker Bill was drafted by a special committee of the National Association of Railroad and Utilities Commissioners in 1925 after the United States Supreme Court decisions in the Buck and Bush cases. It was introduced by Senator Cummins in the Senate[31], and by Representative Parker in the House of Representatives.[32] Hearings were held on the Senate bill but the proposed legislation was never considered in the House.

The Cummins-Parker bill proposed to divide motor carriers into Class A carriers, embracing all common carriers by motor vehicles engaged in interstate commerce between fixed termini or over a regular route, and Class B carriers, covering all other common carriers by motor vehicles operating in interstate commerce.

Carriers desiring to operate under the provisions of the proposed legislation were required to obtain a certificate of public convenience and necessity from state boards or commissions composed of representatives from several states in which the applicant carriers proposed to operate. Appeals from the decisions of the joint boards as created may be taken to the Interstate Commrece Commission. It was provided, however, that the Commission not only was to act as an appellate tribunal, but should also exercise original jurisdiction instead of a state board if the states did not, within 60 days after the passage of the Act, give notice of their election to administer the Act. In addition to the above duties, the Interstate Commerce Commission

31. 69 Congress, 1st Session, S. 1734, December 16, 1925.
32. 69 Congress, 1st Session, H. R. 8266, January 23, 1926.

was charged with the duty of prescribing a uniform system of accounts for motor-vehicles operators.

The bill specified the form of application for the certificate for each class of carriers, and provision was made for hearings. In determining whether or not a certificate shall be issued, the commission or board hearing such application shall give reasonable consideration, among other things, to the character of service to be rendered by the applicant, to the available transportation service by the existing transportation agencies, and to the effect which such service will have upon any other transportation agency the continued operation of which is important to the communities served.

In issuing the certificate, the Board or Commission may prescribe such reasonable terms and conditions as to the weight of the load, the number of passengers, continuity of operations, adequate service, the exclusion of pick-up and delivery points, or routes between termini, or within defined localities or districts and to such other matters as in its judgment the public convenience and necessity require.

The bill prescribes liability protection for both passenger and property carriers, the amount of which is to be determined by the regulatory body. Such bonds shall be filed with the Board to which application is first made and shall be made payable to the United States.

The scope of regulation covers the following aspects:

1. All rates, fares, and charges should be stated in money and shall be just, reasonable, and nondiscriminatory.

2. The rates of Class A carriers must be filed with the commission and posted before operation is commenced.

3. No deviations are permitted from the published rates, and no changes in rates may be made except after thirty days' notice or upon the authority of the Interstate Commerce Commission to make the changes upon shorter notice.

4. Complaints alleging unreasonable or discriminating rates may be made to the appropriate board, which shall institute an investigation. If such complaint shall involve a proposed rate not in effect, the Board shall have authority to suspend the same, pending investigation, for a period not longer than one hundred and twenty days.

5. The Interstate Commerce Commission shall promulgate a system of accounts to be used by all motor carriers.

6. The Boards or the I. C. C. may supervise and regulate operations of every motor carrier operating under certificates of convenience and necessity; require reasonably continuous and adequate service at just, reasonable, and not unduly discriminatory rates; and regulate such carriers in all matters affecting the relationship between the motor carriers and the traveling and shipping public.

7. Certificates may be revoked by the boards or by the Commission for failure to comply with the law or with any lawful order of the boards or of the Interstate Commerce Commission.

8. Violations of the provisions of the Act are punishable by fine or imprisonment or both.

The Denison Bill.—This bill was introduced into the House by Representative Denison of Illinois. It is almost identical with the draft of a bill suggested by the bus division, American Automobile Association.[33] Only similarities and differences of this bill as compared with the Cummins-Parker bill will be pointed out.

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33. 140 I.C.C., 735.

Ten Denison bill provided only for the regulation of motor buses over regular routes and also for buses operating not over regular routes. No provision was made for the regulation of the transportation of property by motor carriers. Delegations of regulatory power to state regulatory bodies are provided much after the manner of the provisions in the Cummins-Parker bill.

A provision, which was not contained in the Cummins-Parker bill, was made that in the case of Class A motor carriers which were on or before March 3, 1925,[34] and continuously after, and at the time of filing of application for certificates were regularly operating, such carriers should be entitled to certificates of convenience and necessity without further proof.

The Denison Bill also differed from the Cummins-Parker Bill in that the effect on existing transportation agencies need not be considered in acting upon applications for certificate of convenience and necessity.

The Cummins-Parker Bill provided that in fixing rates to be charged, the state board or the Interstate Commerce Commission should take into consideration the kind and character of service to be performed, the public necessity therefore, and the effect of such rates upon other transportation agencies. A similar provision did not appear in the Denison Bill.

The Denison Bill porvided that all rates, fares, and charges should be just and reasonable but no reference was made to their not being unduly discriminatory.

No hearings were held on this bill and no action was taken by Congress.

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34. Buck v. Kuykendall, supra, and Bush v. Maloy, supra, decided on March 2, 1925.

The Parker Bill—Representative Parker introduced the House Bill 12380 on March 24, 1928.[35] It follows closely the scheme of regulation recommended by Examiner Flynn. The regulation of motor trucks was not provided in this bill. It also failed of passage in Congress.

The Parker-Couzens Bill—The bill provided for the regulation of common carriers of persons on the public highways and its provisions were in general accord with the recommendations of the Interstate Commerce Commission during the investigation of motor bus and motor truck operation. It was passed by the House of Representatives at the second session of the Seventy-first Congress. In the Senate the bill rested with the Committee on Interstate Commerce when Congress adjourned March 4, 1931.[36]

The Proposed Federal Motor Carrier Act, 1932—A bill was introduced into the Senate by Senator Couzens in the Seventy-second Congress to regulate the transportation of persons and property in interstate commerce by motor vehicles operating on the public highways.[37] A similar bill was introduced in the House by Representative Huddleston.[38] Extensive hearings were held on the Senate Bill but no action was taken in Congress prior to adjournment in July, 1932.

This Bill made it the duty of the Interstate Commerce Commission to supervise and regulate motor buses, common-carrier trucks, and charter carriers by motor vehicle. To that end the Commission was authorized to establish reasonable requirements with respect to continu-

35. 70 Congress, 1st. Session, H. R. 12380.
36. 71 Congress, Second Session, H. R. 7954.
37. 72 Congress, 1st Session, S. 2793, Jan. 7, 1932.
38. 72 Congress, 1st Session, H. R. 7239, Jan. 8, 1932.

ous and adequate service at just and reasonable rates, a uniform system of accounts, maximum hours of service, safety of operation and equipment, and comfort of passengers.

Except in case of matters required to be referred to a joint board, the Commission shall hear and decide all matters arising under the administration of this legislation.

The Commission shall refer to a joint board for hearing and recommendations of appropriate order on certain matters when the common-carrier operations involve not more than three states. In case such operations involve more than three states, the Commission may refer to a joint board at its own discretion. The joint board is to be composed of one member from each state, within which the motor-acrrier operations are proposed to be conducted.

In issuing a certificate or permit the Commission shall be guided by the general principle that competition in service shall be preserved as far as is consistent with the public interest. Absence of adequate service shall be sufficient evidence that the public convenience and necessity will be served by the proposed operation. The Commission shall determine adequate amount of liability protection to be filed with it.

Recommendations of the Interstate Commerce Commission Upon Federal Regulation of Interstate Motor Transportation—The Interstate Commerce Commission has made certain recommendations for legislation in its report on "Coordination of Motor Transportation."[39]

1. Motor busses and transportation of property for hire by motor trucks should be subjected to reasonable regulation. Motor trucks should be divided into two general

39. 182 I.C.C. 385.

classes, common carrier and contract carrier.[40] Freight-forwarding companies and express freight companies should also be made subject to the provisions of the Interstate Commerce Act.

2. The Commission should be vested with the jurisdiction to administer such regulations with authority to delegate specific matters to joint boards composed of members of state regulatory bodies. The Commission should be authorized to confer or to hold joint hearings with representatives of the state regulatory bodies, and is authorized to avail itself of the cooperation, and facilities of any state.

3. Motor carriers subject to regulation should be required to secure a permit or certificate of public convenience and necessity as a prerequisite to operations.

4. The certificates should be issued as a matter of course to bona fide operators who have been in business for a stated length of time prior to the effective date of the act.

5. Permits and certificates should be assignable with the approval of the Commission, and revocable by it for cause.

6. Liability insurance or an indemnity bond should be required to protect the public.

7. Fares charged by bus operators should be just, and non-prejudicial and schedules of fares should be published, filed, and observed.

8. A uniform system of accounts should be required and provision made for the filing of such reports as the Commission may deem necessary.

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40. Permits shall be issued carriers of property and certificates to carriers of persons.

9. The participation in joint rate and through routes between motor common carriers and common carriers by railroad and by water should be authorized but not required, and such transportation should subject to the provisions of the Interstate Commerce Act.

10. Due to the fact that the States now have the right to protect the public safety under their police power, no requirements should be made regarding the qualifications of drivers, hours of service of employees, and safety of operation.

The Problems of Federal Regulation of Motor Transportation—One interesting feature, and also a much disputed one, of federal regulation of motor transportation is the machinery of control. In what authority should regulation be vested? The proposed legislations favor the coorperation of state and federal regulatory commissions. It is argued that the Interstate Commerce Commission is already overburdened with work. Motor transportation of passengers and property is local in nature, particularly where there is heavy traffic moving in and out of a large city located in or near a state boundary line. Regulation of such operations requires knowledge of local conditions which the Commission does not possess. Therefore, it seems desirable that the experience of the several state commissions in the regulation of intrastate motor-vehicle transportation and their familiarity with local conditions should be utilized.

Would it be feasible to permit the several state comissions to regulate the activities of interstate motor common carriers? A few states have no commissions, hence the Interstate Commerce Commission would have to exercise original jurisdiction. Moreover, there is considerable variation in the personality and previous training of the state commissioners. It is true that their local knowledge may be asset in attacking some types of regulatory problems

but they may not fit easily into a machine of regulation national in scope.[41]

Doubt has been entertained as to the constitutionality of delegation of administrative power by Congress to state agencies. Professor Stuart and Daggett raises the question whether federal government can add to the powers of state commissions as defined by state legislations, or establish any extra-constitutional relations with state bodies except in the way of friendly conferences and exchange of views.[42]

The general principle, which has long been upheld by the Supreme Court of the United States, is that authority may be conferred upon a state officer to execute a duty imposed under an act of Congress unless its execution is prohibited by the constitution or legislation of the State,[43] but state officers cannot be compelled to perform such duties. It is, therefore, the belief of the Interstate Commerce Commission and proponents of the proposed legislation that Congress has the right to delegate to State agencies the administration of Federal Statutes, and it seems reasonably free from doubt that it can do so in the administration of laws regulating interstate commerce, particularly if provision is made for an appeal from the action of such agencies to a Federal tribunal.[44]

The Scope of Federal Regulation—Admitting the necessity of federal regulation of motor transportation, should it include motor trucks as well as motor buses? The opponents of truck regulation contend that restrictive

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41. Daggett, Stuart R., supra cit., p. 693.

42. Ibid., p. 693.

43. Dallemegne v. Moisan, 197 U. S. 169; In Re Rahrer, 140 U. S. 545, 560.

44. Motor Bus and Motor Truck Operation, 140 I.C.C., 743.

regulation applying to common-carrier trucks and contract carriers would not essentially change the competitive conditions between railroad and highways, as there would still remain the owner-operated trucks comprising a very large percentage of the total number of trucks in use not subject to regulations. Furthermore, the chief advantage of truck service is its flexibility or non-standardized services, which would be destroyed if motor truck is brought under regulation.

To support the contention for truck regulation it is argued that, without it, shippers cannot be assured of the equality of treatment and commercial opportunity which appropriate regulation would provide. Besides, all important agencies of transportation should be placed on the same plane of regulation so that fair competition can prevail. It is questionable whether the railroads could contrive to give the service which the public needs with their competitors free to compete.[45]

The strongest argument against regulation of motor trucks is that the industry is in an experimental stage and should be given time for unimpeded development. The same argument could be used in favor of truck regulation. If motor transportation is recognized as an integral part of a well-conceived national transportation system, it should be guided toward its proper field of usefulness in its early stage of development.

Should Contract Motor Truck Carriers be Regulated?—Since the proportion of motor trucks operated by contract

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Alfred P. Thom and Alfred P. Thom, Jr., "Brief on Behalf of the Association of Railway Executives," before the Interstate Commerce Commission, Docket 23,400.

carriers is very much larger than that operated by common carriers and as long as this tremendous traffic is unregulated, it is plain that regulation of common-carrier trucks has doubtful value.

Federal regulation of contract carrers in interestate commerce, if modeled on the existing state statutes, embodying rate fixing and certification, will run into the same constitutional difficulties as have some of the state statutes already set aside by the Court.[46] In The Frost Trucking Co. case, the Court said:

> In other words, the case presented is not that of a private carrier who, in order to have the privilege of using the highways, is required merely to secure a certificate of public convenience and become subject to regulations appropriate to that kind of a carrier; but it is that of a private carrier who, in order to enjoy the use of highways, must submit to the condition of becoming a common carrier and of being regulated as such by the railroad commission.

A hint is made in the above declaration of the court that laws providing for regulation "appropriate to that kind of a carrier," referring to a contract carrier, would not be repugnant to the provisions of the Constitution.

From this discussion, we cannot escape the conclusion that federal legislators as well as state legislators must devise a different regulatory system in order constitutionally to reach the contract carrier.[47]

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46. Michigan Pub. Util. Comm. v. Duke, 266 U. S. 570; Frost Trucking Co. v. R. R. Comm. 271 U. S. 583; and Smith v. Cahoon, 283 U. S., 551.

47. LaRue Brown and Stuart N. Scott, "Regulation of the Contract Motor Carrier under the Constitution," Harvard Law Review, Vol. XLIV, No. 4, February 1931, p. 566.

CHAPTER X

SUMMARY AND CONCLUSIONS

Railroads have suffered severely, along with many other industries, during the period of adverse business conditions which followed the memorable year, 1929. Distrust in railroad securities upon the part of investors reached serious proportions due primarily to the very large reductions in earnings, the chief cause of which has been the loss of traffic. Had this decline in earnings been brought about solely by temporary nation-wide depression, a return to normal economic status would put an end to the difficulties now faced by railroads. The situation is very much accentutated, however, by the realization that the railroads are now facing serious competition from other, largely new, and developing means of transportation. The most important among the new competitors is the motor carrier.

Bus competition has increased rapidly during the last ten years. From 1922 to 1929 bus lines showed an increase of 1,674,000,000 passengers, or again of almost 200 per cent, as compared with a loss of 92,826,473 passengers during the same period by steam railroads. The bus has been responsible for about 20 to 30 per cent of railroad-passenger traffic lost and the remainder is attributable to private automobiles.

The competition of automobiles and motor buses has been so far confined chiefly to local and interline travel. This is verified by the greater loss in the number of passengers than in passenger miles, by the longer average

journey of passengers, and finally by the fact that railroad commutation and pullman car traffic has increased steadily, although the total railroad passenger traffic has declined. In the last few years, mainly due to better advertising campaigns, improvements of highways and equipment, and consolidation of stronger coach lines, motor buses have gradually expanded their economic radius of operation and have begun to compete for long distance passenger travel. This will bring increasing difficulties to the railroads because long-haul passenger traffic affects their earnings vitally and they will have to wrestle with more than a feeder and branch line problem.

On local main and branch line operation, buses and the private cars have almost completely superseded rail service. For distances more than 150 miles and up to 250 miles, bus competition is still keenly felt. The advantages of the railroads in elapsed time en route and in comfort are partially overcome by lower bus charges and greater convenience of schedules and points of arrival and departure. For longer distances, rail service has decided advantages.

Highway trucking is a comparatively new industry made up of generally small-scale operators who lack the effective organization and financial responsibility. The industry is dominated by private operators, with common carriers and contract carriers combined constituting about one-quarter of the total number of operators. In view of the small number of common-carrier truck operators, many are led to believe that regulation should not be applied to motor trucks, at least for the present time. Certainly no plan of rate regulation is feasible which does not include within its provisions the contract carriers.

Truck competition is keen around large trade centers between which large volumes of traffic are carried. Truck

lines run more or less parallel to rail lines, so of the traffic carried by truck, the greater part would in all probability have moved by rail. Where truck lines are found close to state boundaries, interstate motor-truck operation becomes the more important.

Trucks have distinct advantages in transporting less-tan-carload freight for distances not beyond the economic range of truck operation. The list of commodities handled by trucks is selective in nature but it is progressively extending to include some of the carload traffic which formerly was supposed to be within the exclusive province of the railroad. The economic sphere of truck haul depends upon the type of commodity hauled, the distance between centers of population, the balance in the movements of traffic in both directions, the type of highway improvements, and other forms of transportation service available.

The ease of entering the industry has made the competition among truck operators so keen that a considerable part of trucking service is rendered at rates far below what would be necessary to make fair return upon investment. Such competitive conditions may temporarily benefit some shippers but, if continued unchecked, will work considerable injury to operators themselves and to the shipping public. Greater stability in rates is desirable.

In addition to lower rates, advantages which trucking service offers to shipper are overnight delivery service, store-door delivery by one transportation agency, small amount of loss and damage, direct contact with transportation agency, non-scheduled rush service, store-door reconsignment without transfer, settlement of claims, and rapid service.

The diversion of railway passenger and freight traffic on account of motor competition causes a great increase in unit costs upon traffic that remains on the railroads because rail carriers experience the difficulty of curtailing

operations, reducing employment, and effecting other adjustments. Reduction of freight rates to meet truck competition has generally been unsuccessful in recouping sufficient traffic to improve net earnings. Rates on certain truck traffic, especially back-haul rates, are so low that rail carriers cannot meet them at compensatory rates. Low railroad excursion fares have in some instances proved profitable, but, regarding other variety of reduced fares, the general indication is that they do not improve revenue. The regulation of interstate bus fares would help to equalize competitive conditions.

Railroads have also attempted to adjust operating expenses in resonance with the reduced volume of traffic. The use of the rail-motor car in substitution for steam passenger train when traffic is light has been successful in reducing operating expenses. Other possible sources of economy are the limination of over-supplied freight service and the reduction in station forces.

Among the remedial changes proposed by railroads for the purpose of meeting motor competition are the liberal attitude to be taken by the Interstate Commerce Commission in the administration of the Interstate Commerce Act, new legislation applying to highway transportation, and the elimination of public subsidies to highway transportation. Efforts to reduce highway competition by opposing before public utilities commissions the granting of permits to independent highway operators are not very successful. Railroads should admit the fact that where there is a public demand and economic juistification for the service, any attempt to resist the growth of a new form of transportation has always failed.

Railroads have more success in meeting motor competition through coordination than by any other method experimented. In the passenger service, motor buses have been used to replace local passenger train in whole or in

part, to serve as feeder lines, to provide connections for through passenger journey, to extend the service of the railroads to points located on branch lines where the traffic is light, to provide additional service auxiliary to local train service, and to handle employees in replacement of workmen's trains. Motor trucks have been coordinated with railroad terminal operation to eliminate inefficiency in the use of railroad facilities. Store-door pick-up and delivery service represents a step toward the furnishing of a complete transportation service and should be encouraged. In order that full advantage of the system will be realized, shippers should be induced to make use of it as much as possible. But the service should be sufficiently flexible to be attractive to shippers. The use of trucks in substitution for train service in areas of light traffic has been beneficial in reducing cost and improving service. In addition to these truck operations, there is also the container service in which motor truck is employed in the terminal work. Transportation of truck bodies and railwagons is the most recent development in the coordinated rail-motor freight service. Its possibilities, however, are not yet fully disclosed.

The complete coordination of transportation facilities so that each agency is employed only in the field where it possesses undisputable advantages should be the goal in the development of an efficient and adequate national transportation system. Obstacles are still in the way which should be cleared before a successful scheme of coordination can be inaugurated. Shippers and consignees must be more thoroughly convinced, through education, of the practibility and value of the coordinated transportation service. The Clayton Anti-Trust law should be modified to make effective coordination of rail and motor transportation possible.

In the absence of federal legislation, the regulation of motor transportation is wholly in the hands of state government. State control over motor common carriers is usually

exercised through the devise of a certificate of public convenience and necessity. Legal difficulties have been encountered to extend the same regulatory measures to apply to contract motor carriers. The United States Supreme Court has decided that it is beyond the power of the state by legislative fiat to convert property used exclusively in the business of a private carrier into a public utility or to make the owner a public carrier. It is not to be understood, however, that the states are estopped from imposing upon contract carriers requirements that are not exacted of other private owners of motor vehicles, but different sets of regulation would have to be designed for common carriers and contract carriers.

State regulation should seek to prevent excessive competition between motor and rail carriers and among the motor carriers themselves. While railroad cannot claim protection as a matter of right, duplication of service would to the end work contrary to public interest. Undue restrictions should not be placed to hinder the development of a useful transportation service. Adjustments at this transitional stage should be allowed to work out gradually.

A state is powerless to withhold a certificate of public convenience and necessity from an interstate motor operator, nor has it the power to require liability insurance or indemnity bond of an interstate carrier after a certificate is granted. As a consequence, some operators engaged in purely intrastate business operate under the guise of interstate commerce by merely establishing a few miles of route in another state and thereby claim that they are interstate operators. These "wild cat" operations have caused disturbance in the rate structure and have discredited motor service with the public. The existing chaotic conditions bear a close resemblance to that which existed half a century ago when the regulation of railroads was left to the state governments. The need for early Federal action is, therefore, clearly demonstrated.

The demand for Federal regulation of motor transportation by buses and by motor trucks comes mainly from the railroads. There is little present demand by shippers for such regulation. Many shippers are reluctant to lose the immediate advantages of unrestrained competition in transportation, but the more remote consequences which may be most injurious to all concerned are not easy for them to foresee. Such injurious consequences are manifested in the instability of transportation charges, loss of much capital invested in both the railroads and the motor vehicles, the tendency to break down wages and conditions of employment in transportation industry, and the increase in the hazard of use of highways. It is not argued that any new means of transportation should be suppressed, but regulation should be provided to restrict competition within reasonable limits, to encourage desirable coordination between the rival forms of transportation, and to stabilize rate and financial conditions. Furthermore, the respective spheres of railroad and motor operation could not be worked out without equalizing their competitive conditions. It is to the best interest of the public that motor transportation should be recognized in the early stages of its development as being an intergral part of the national transportation system and be guided by regulatory action toward finding its proper economic niche.

Federal regulation in the case of a horde of small motor operators naturally has its practical difficulties. One consideration is the local character of motor transportation, which requires a knowledge of local conditions. Legislative bills introduced into Congress all proposed to utilize the several state public service commissions for the administration of the federal motor transportation regulatory act. While constitutionality of delegating the administrative power by Congress to state agencies is reasonably free from doubt, question arises as to the feasibility of such a plan. There is a wide gradation of the personality, training and

capacities of the state commissioners. Experience in the regulation of interstate carriers may narrow their vision as to the regulation of a national scale. It is true that the Interstate Commerce Commission is heavily burdened with administrative work, yet no one has argued that its organization is incapable of expansion to care for these added duties.

Another difficulty, both legal and practical, is the inclusion of contract carriers in the scheme of federal regulation. It is as yet uncertain how far regulation may be lawfully extended to contract carriers which do not operate as common carriers. To regulate common-carrier trucks without similar regulation of competing contract-carrier trucks may not only be unfair but may also have the result of forcing the common carriers to operate as contract carriers. It is reasonable to expect that a different set of regulation should be formulated in order to legally reach these contract carriers.

Public regulation through taxation is a phase of the subject that engenders much controversy. Conflicting statements are produced by interested parties to prove and to disprove the charge of public subsidy to motor transportation. For want of authoritative and complete data, any treatment on this subject is unsatisfactory at present. It is desirable that the Federal and State Governments should institute an impartial investigation of this question to determine the facts before formulating a tax policy that will place the burden of taxation fairly upon all.

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